

---

(12) **UK Patent Application** (19) **GB** (11) **2 388 860** (13) **A**

(43) Date of A Publication **26.11.2003**

---

(21) Application No: **0316883.8**

(22) Date of Filing: **05.06.2000**

Date Lodged: **18.07.2003**

(30) Priority Data:  
(31) **60137998** (32) **07.06.1999** (33) **US**

(62) Divided from Application No  
**0013661.4** under Section 15(4) of the Patents Act  
1977

(71) Applicant(s):  
**Shell Internationale Research Maatschappij B.V.**  
(Incorporated in the Netherlands)  
**Department IP/43 Carel Van Bylandtlaan**  
**30, 2596 HR The Hague, Netherlands**

(continued on next page)

(51) INT CL<sup>7</sup>:  
**E21B 7/20 33/14 43/10**

(52) UK CL (Edition V):  
**E1F FAC FAC9 FCL FLA**

(56) Documents Cited:  
**US 5181571 A** **US 4402372 A**

(58) Field of Search:  
UK CL (Edition V) **E1F FCL**  
INT CL<sup>7</sup> **E21B**  
Other: Online: **WPI, EPODOC, JAPIO**

(54) Abstract Title: **Inserting a tubular member into a wellbore**

(57) A tubular member is coated with a lubricating fluid, e.g. a drilling mud lubricant, to facilitate its placement in a wellbore and to reduce surge pressures.

**GB 2 388 860 A**

**BEST AVAILABLE COPY**

**GB 2388860 A continuation**

**(72) Inventor(s):**

**Robert Lance Cook  
R Bruce Stewart  
Lev Ring  
Richard Carl Haut  
Alan B Duell  
David Paul Brisco  
Reece Edward Wyant  
James Jang Woo Nahm  
Robert Donald Mack  
Andrei Gregory Fillipov**

**(74) Agent and/or Address for Service:**

**Haseltine Lake & Co  
Imperial House, 15-19 Kingsway,  
LONDON, WC2B 6UD, United Kingdom**

1/75

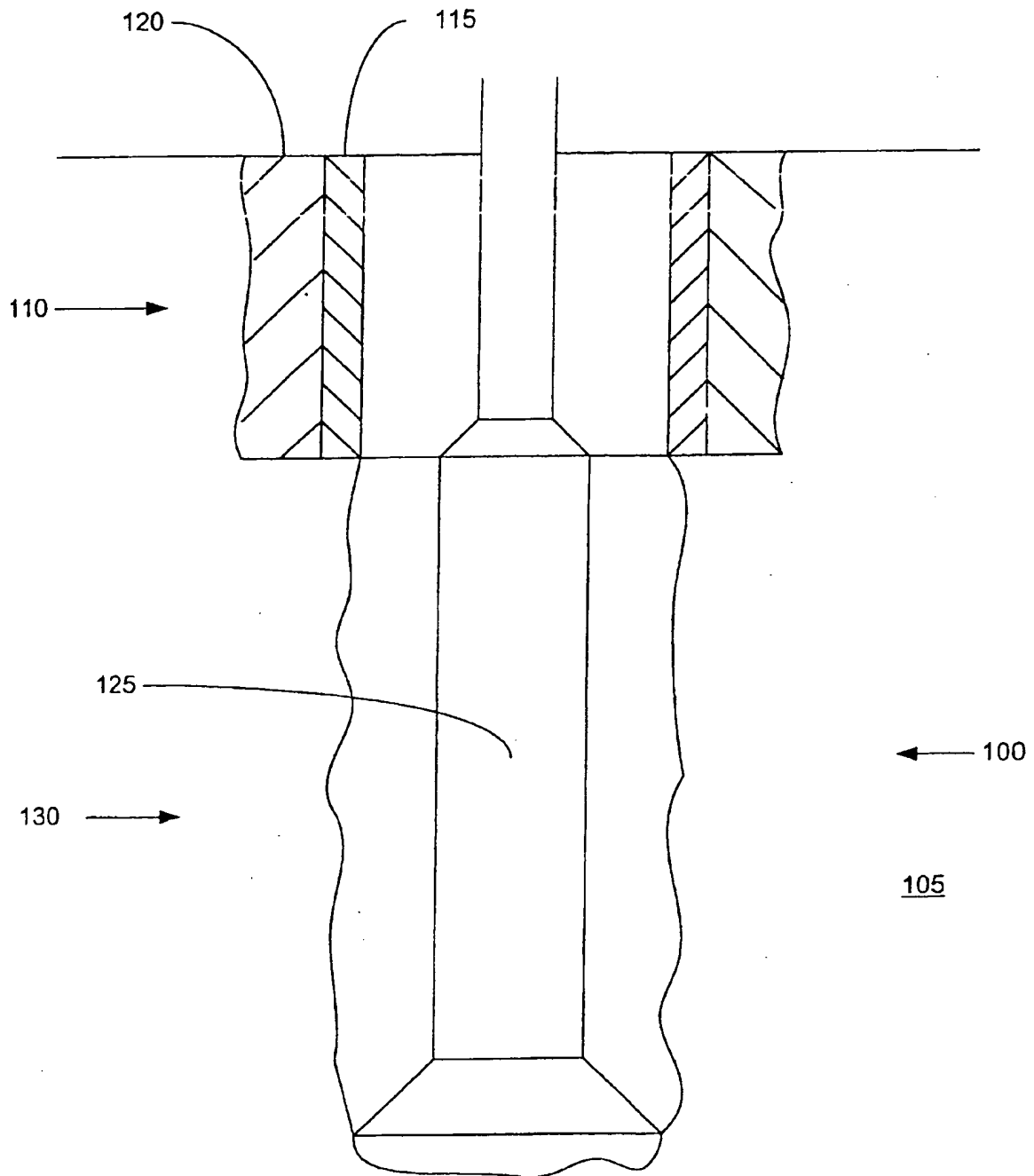


FIGURE 1

275

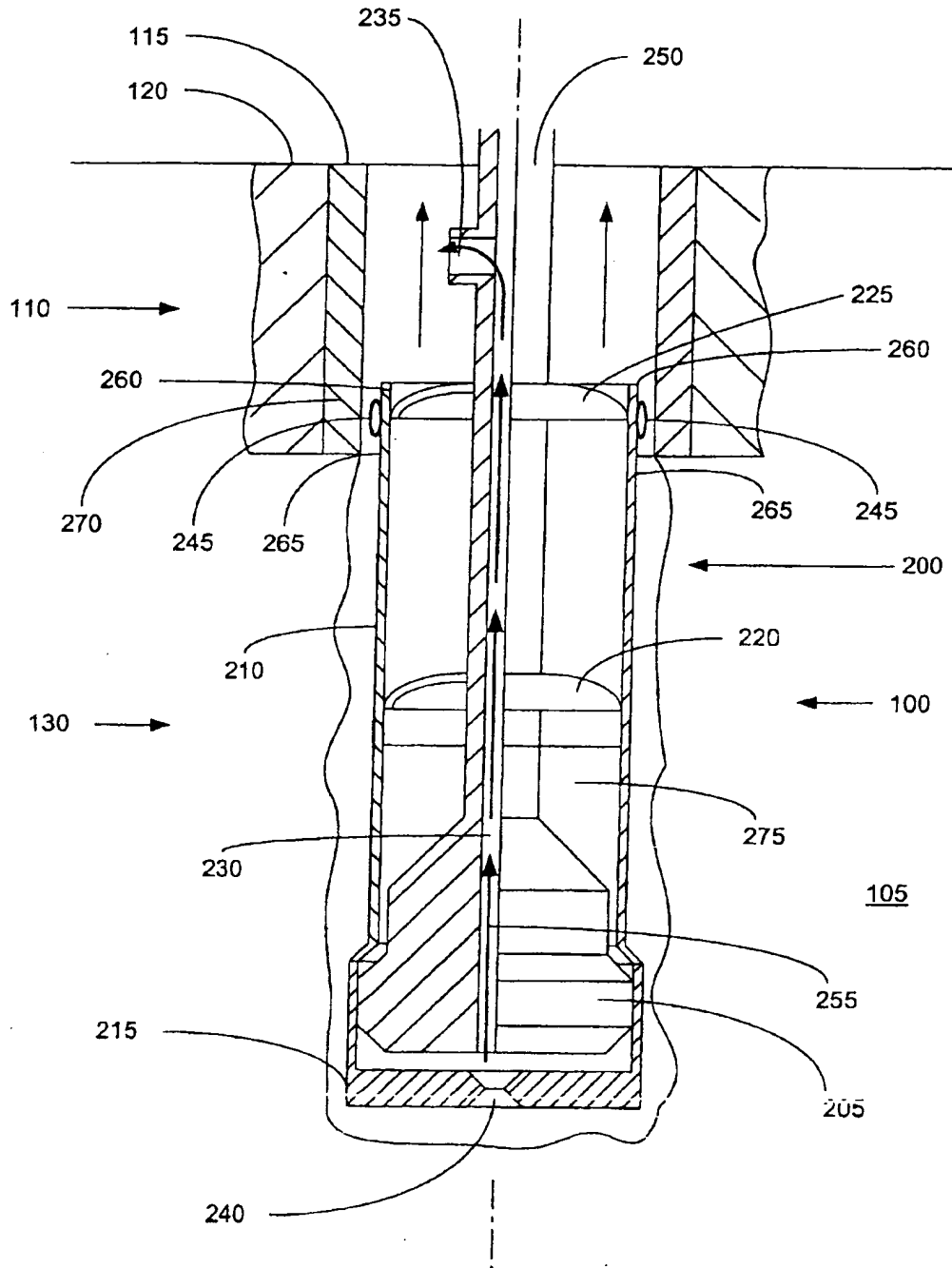


FIGURE 2

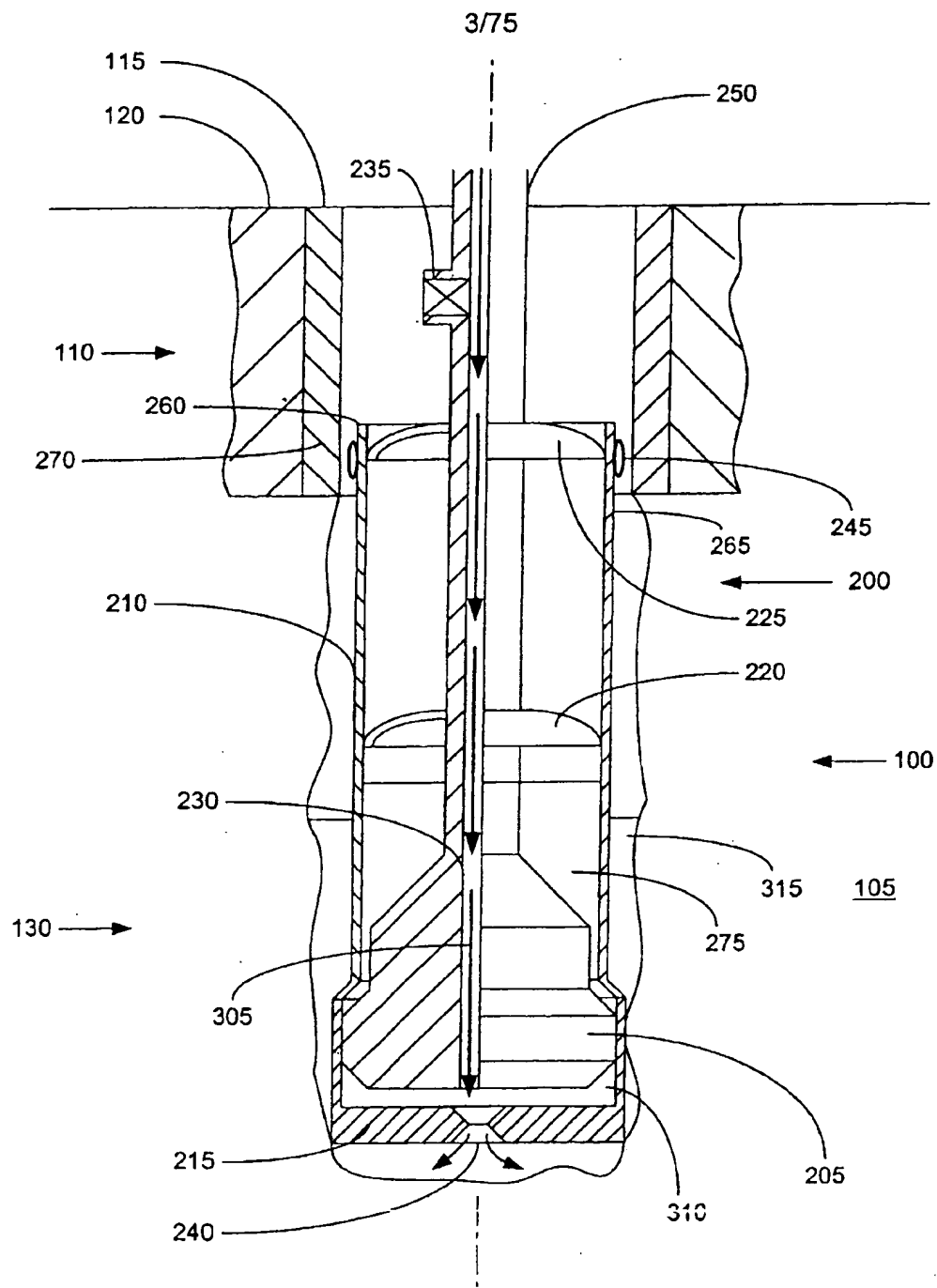


FIGURE 3

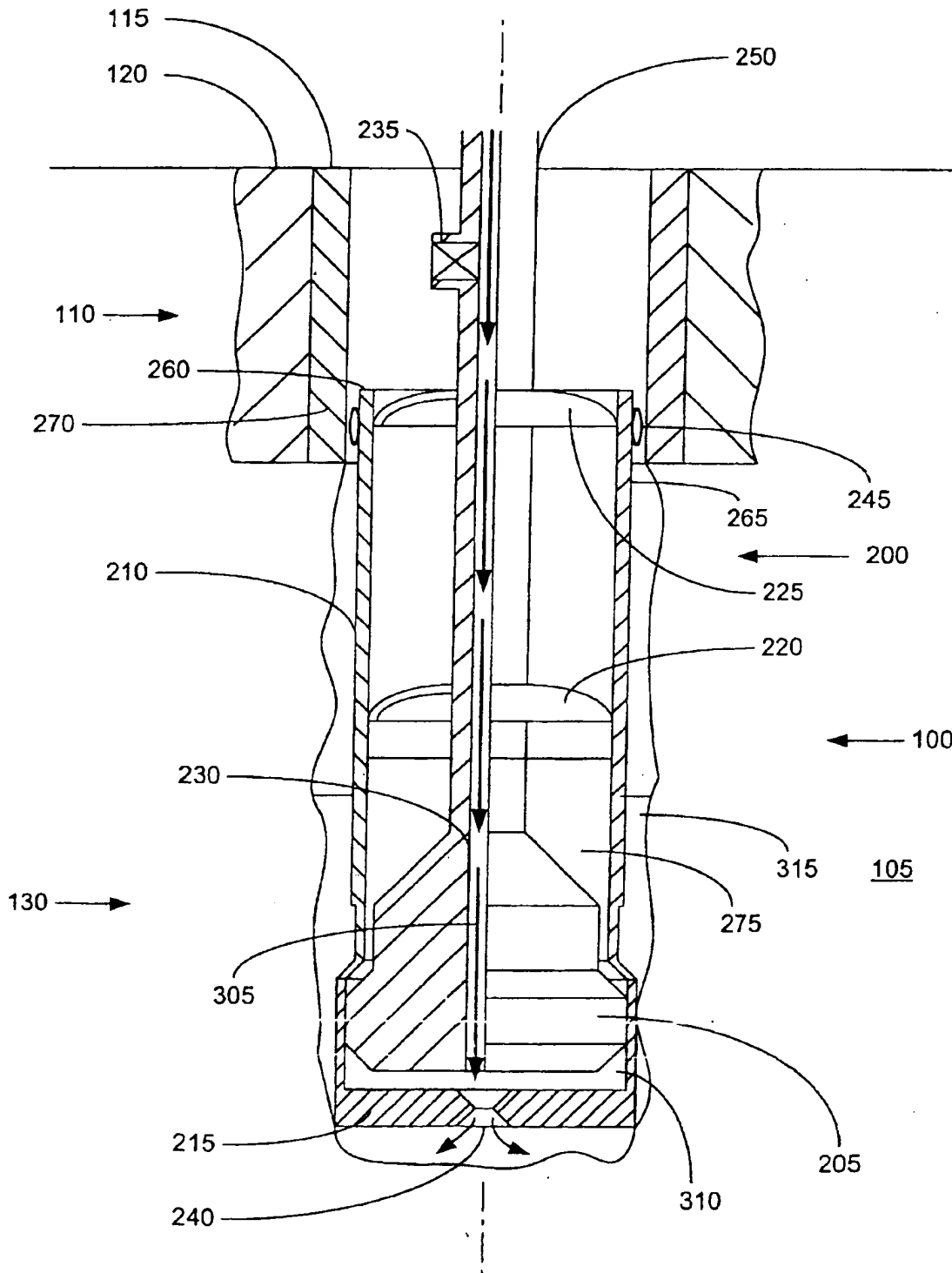


FIGURE 3a



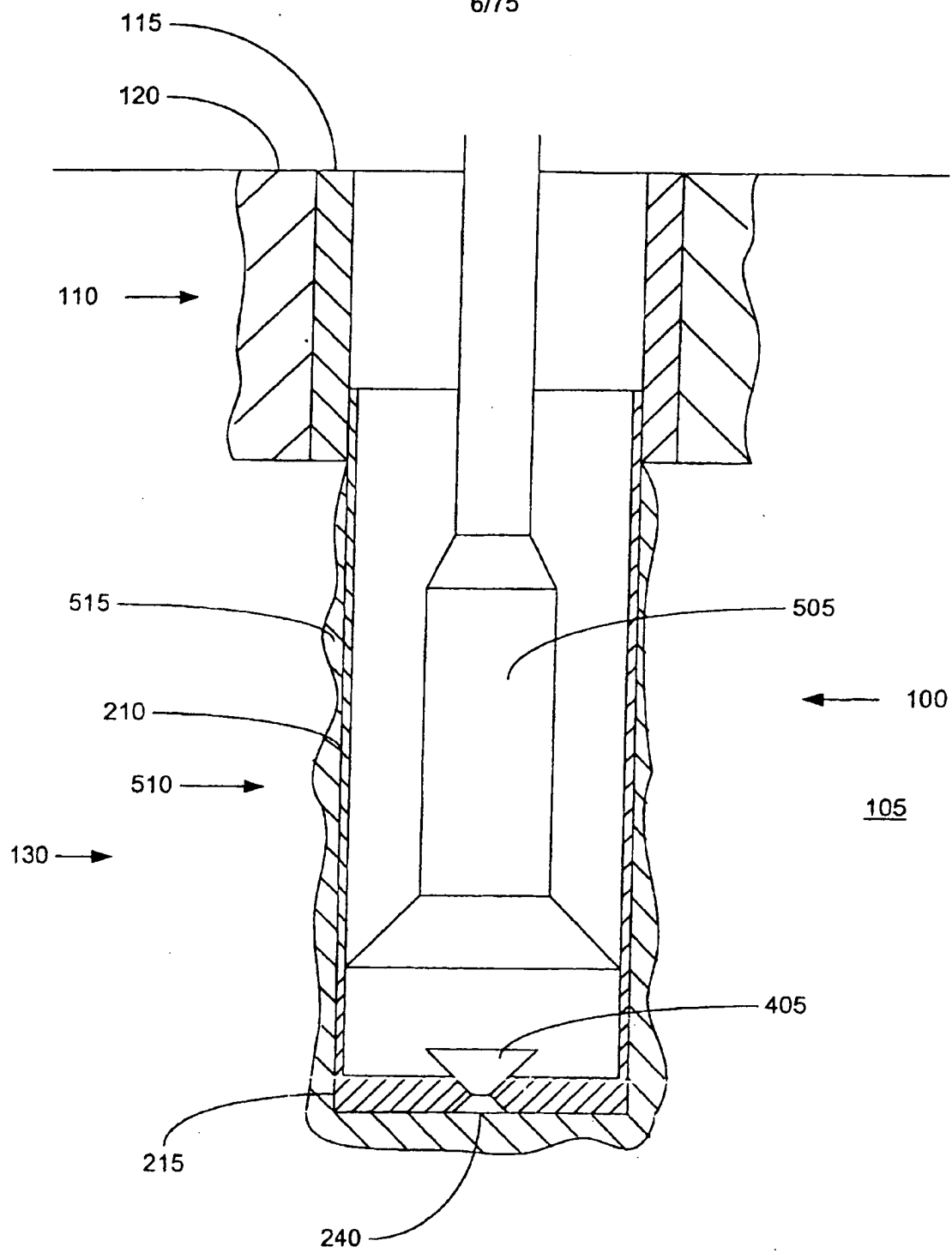


FIGURE 5



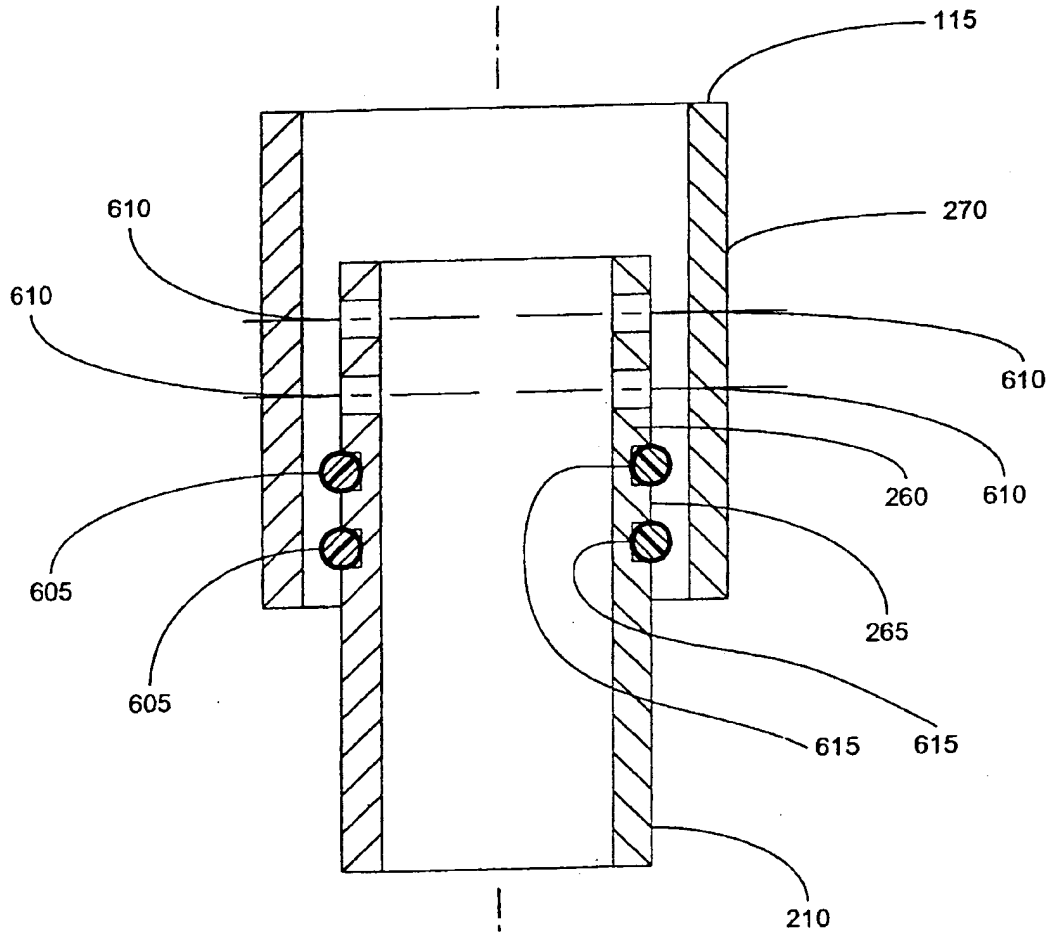


FIGURE 6

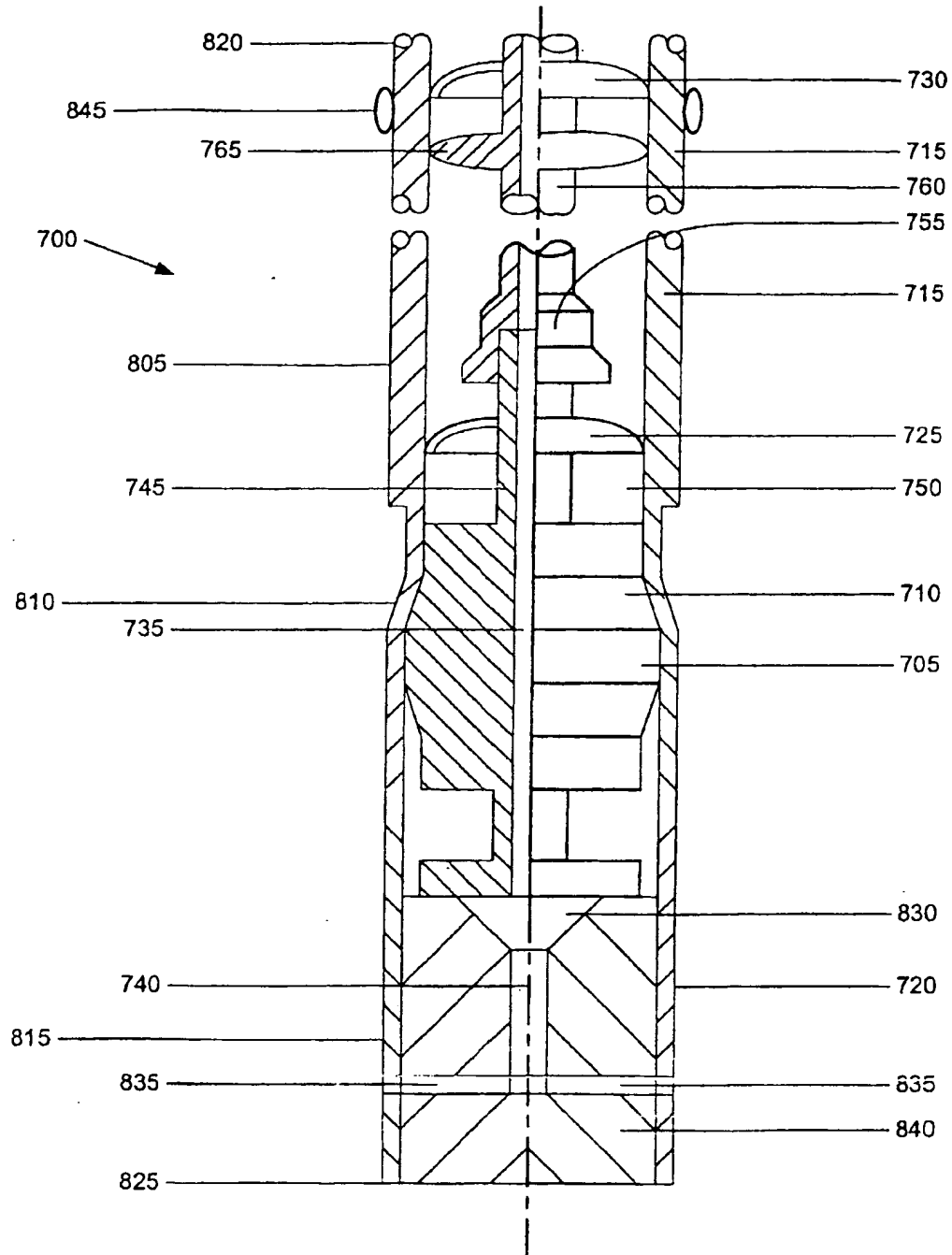


FIGURE 7

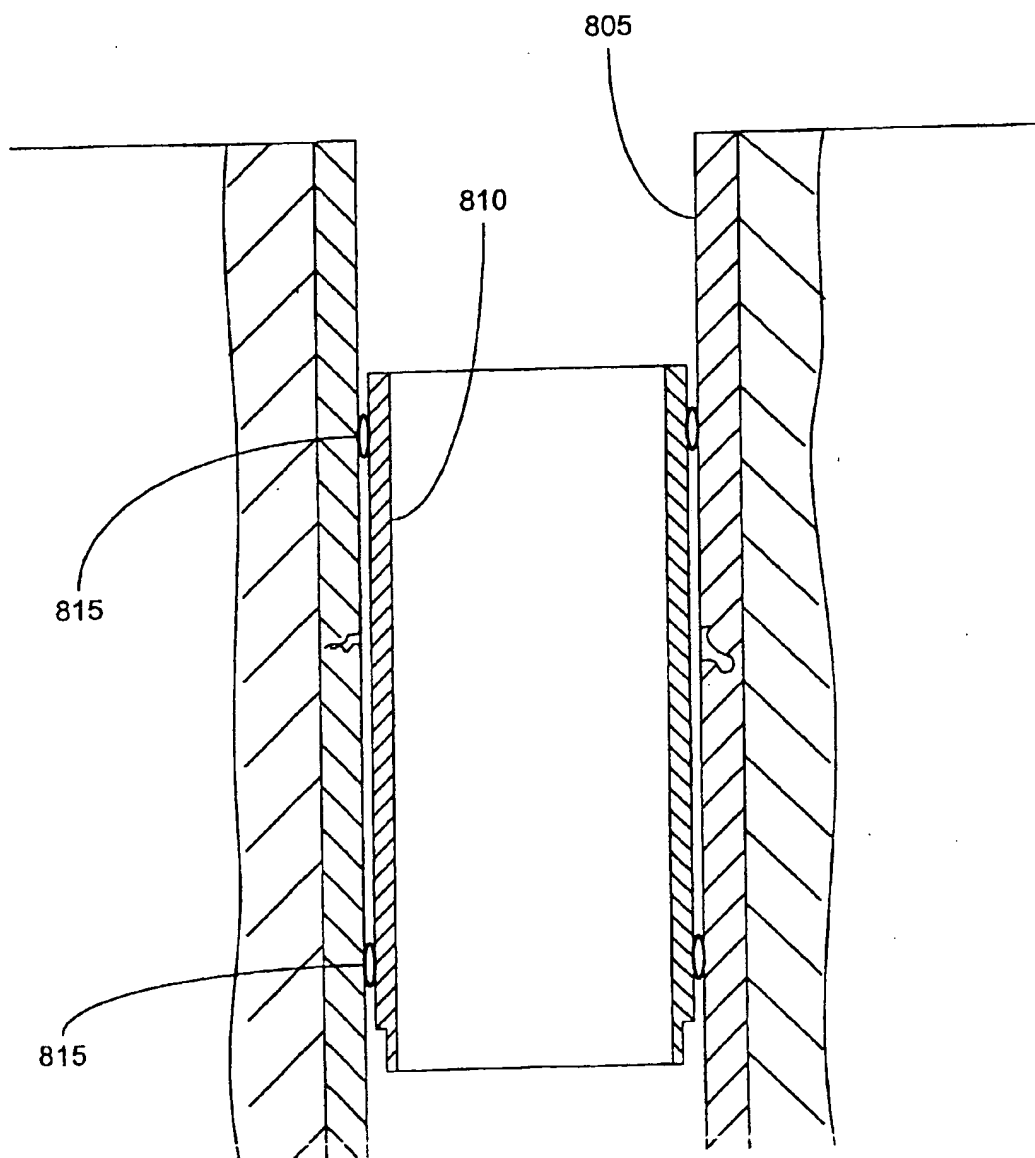


FIGURE 8

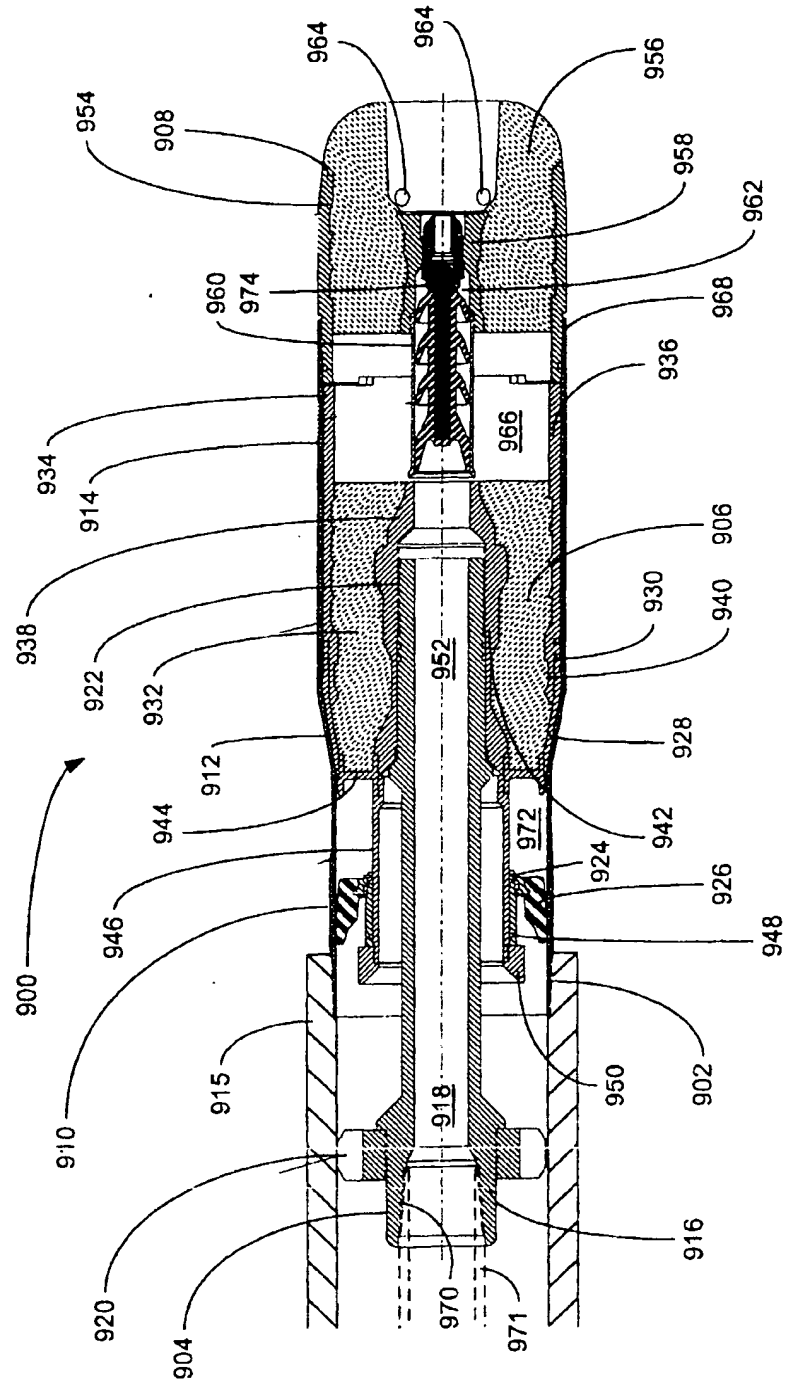


FIGURE 9

11/75

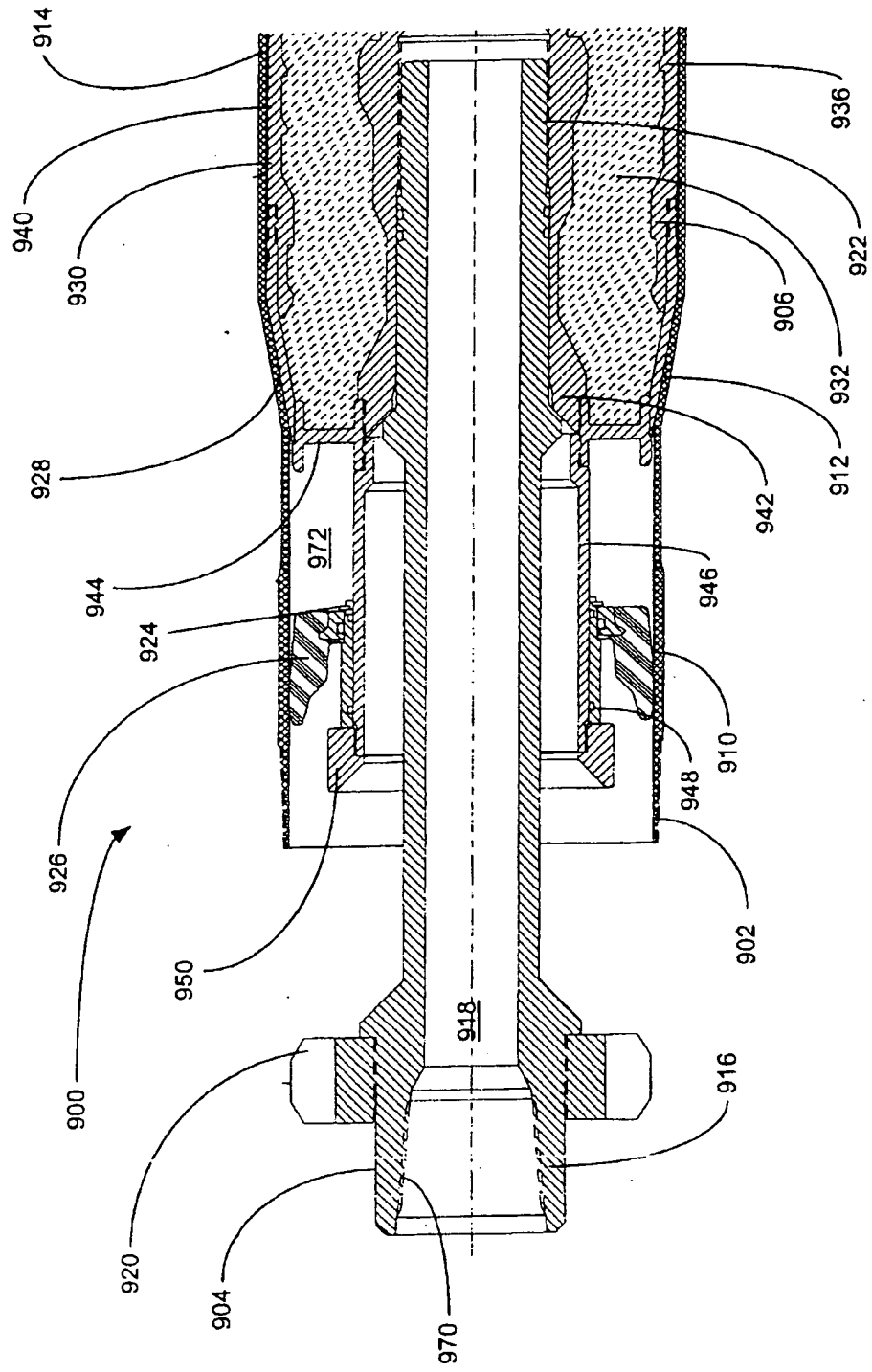


FIGURE 9a

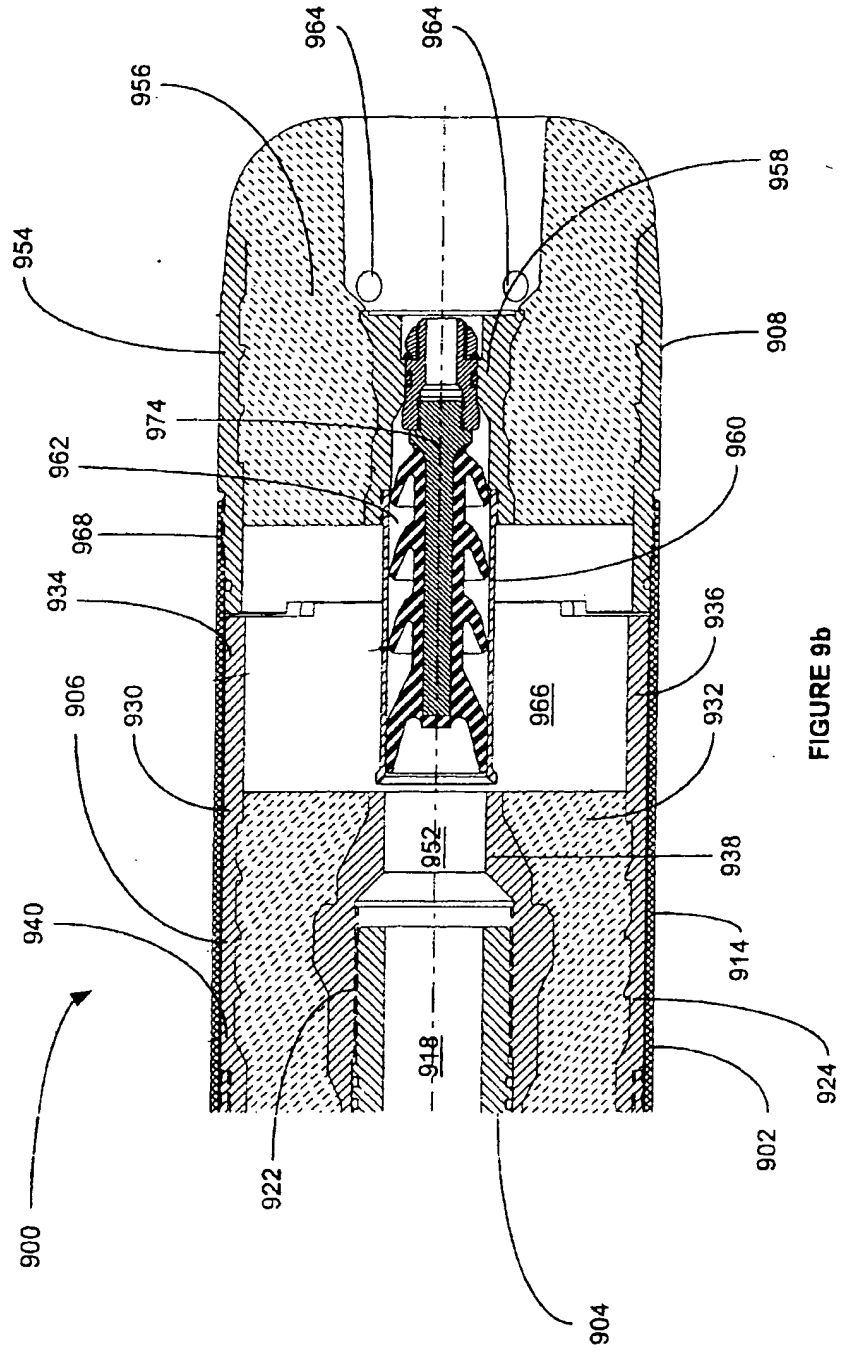


FIGURE 9b

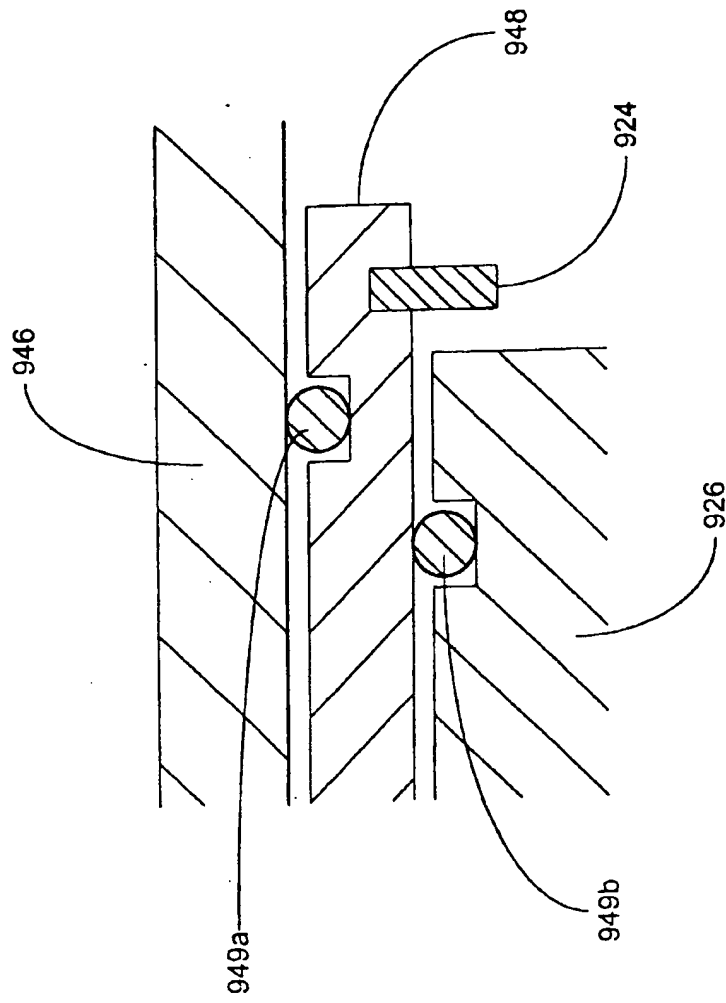


FIGURE 9C

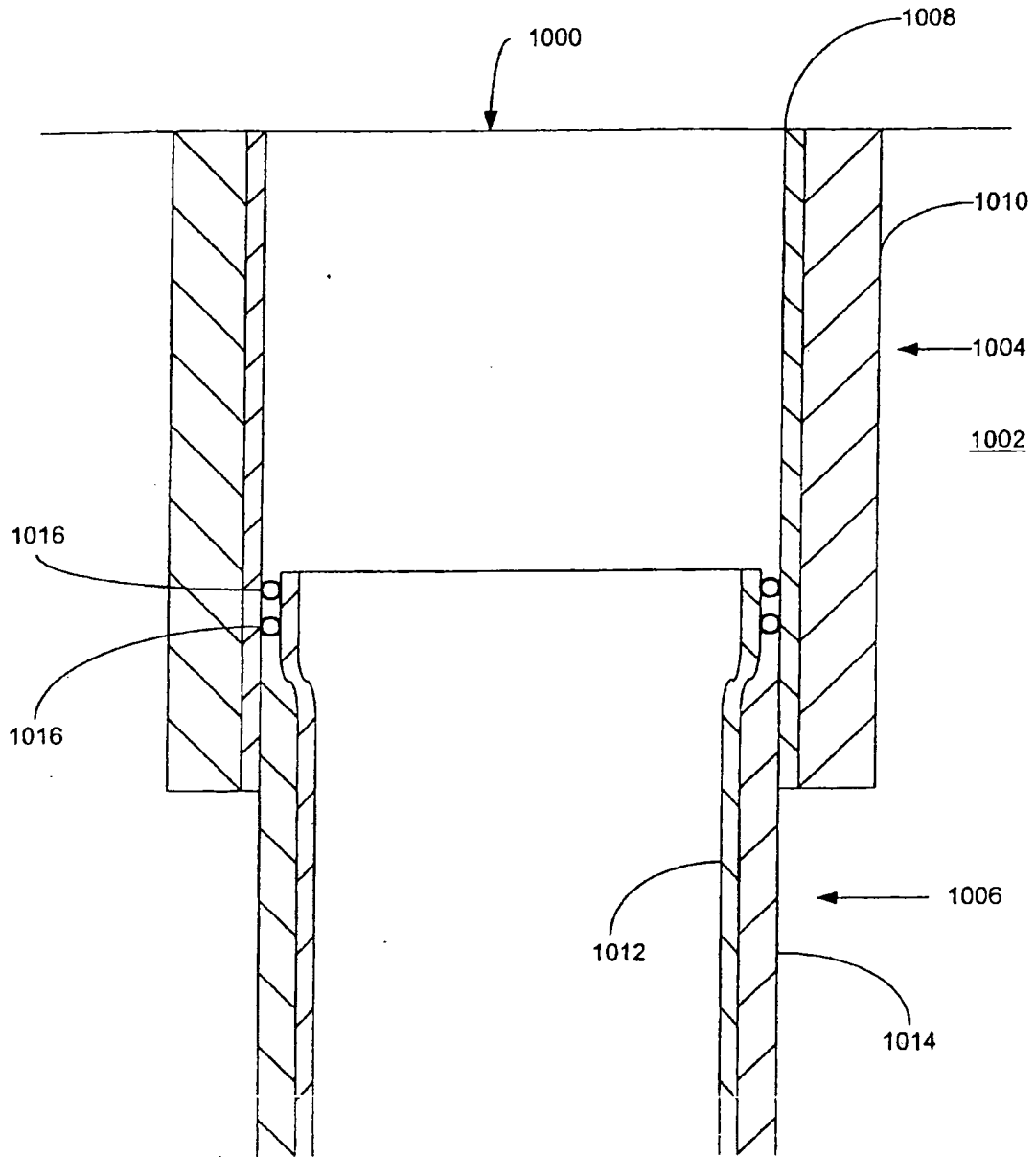


FIGURE 10a



15/75

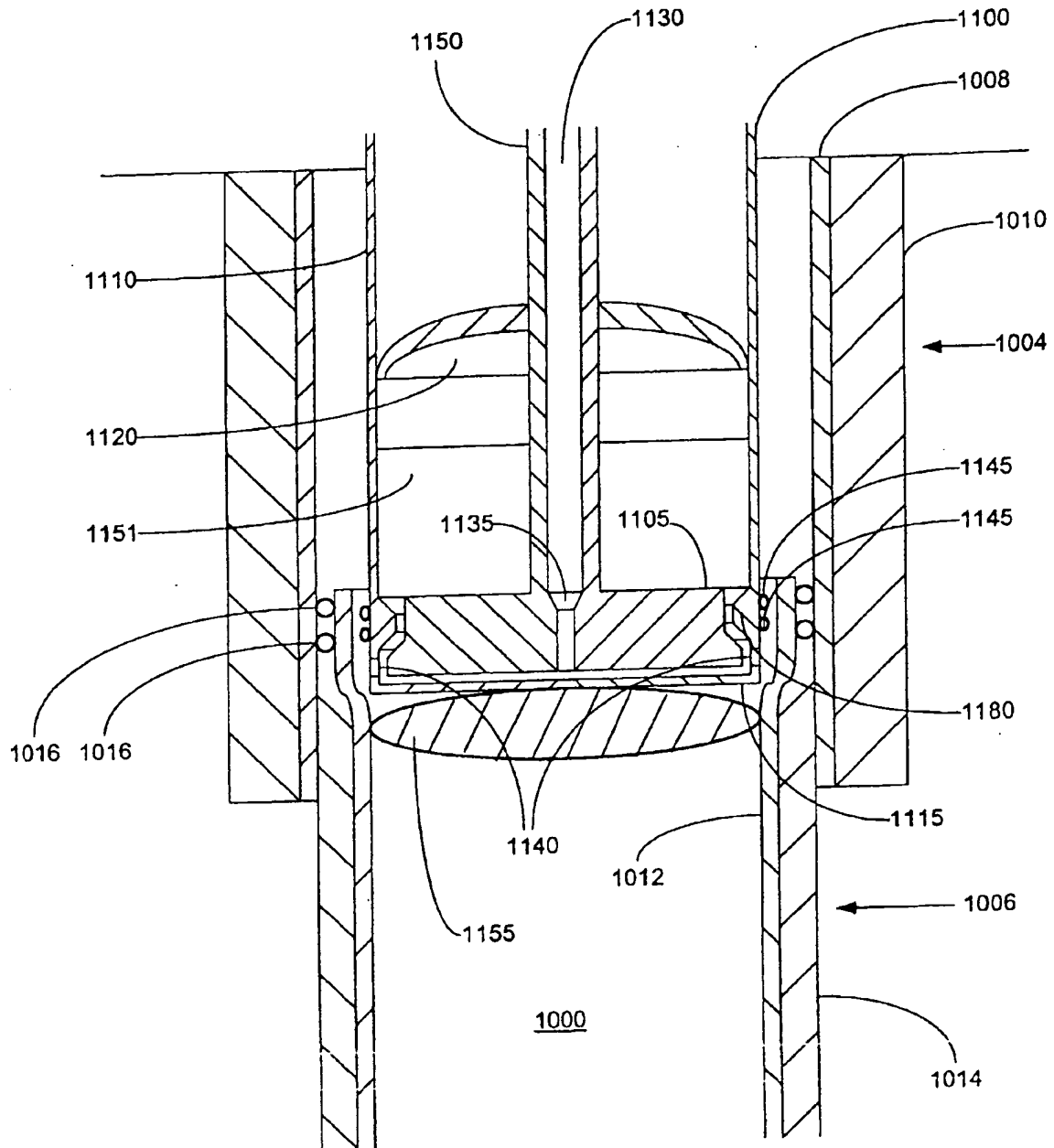


FIGURE 10b

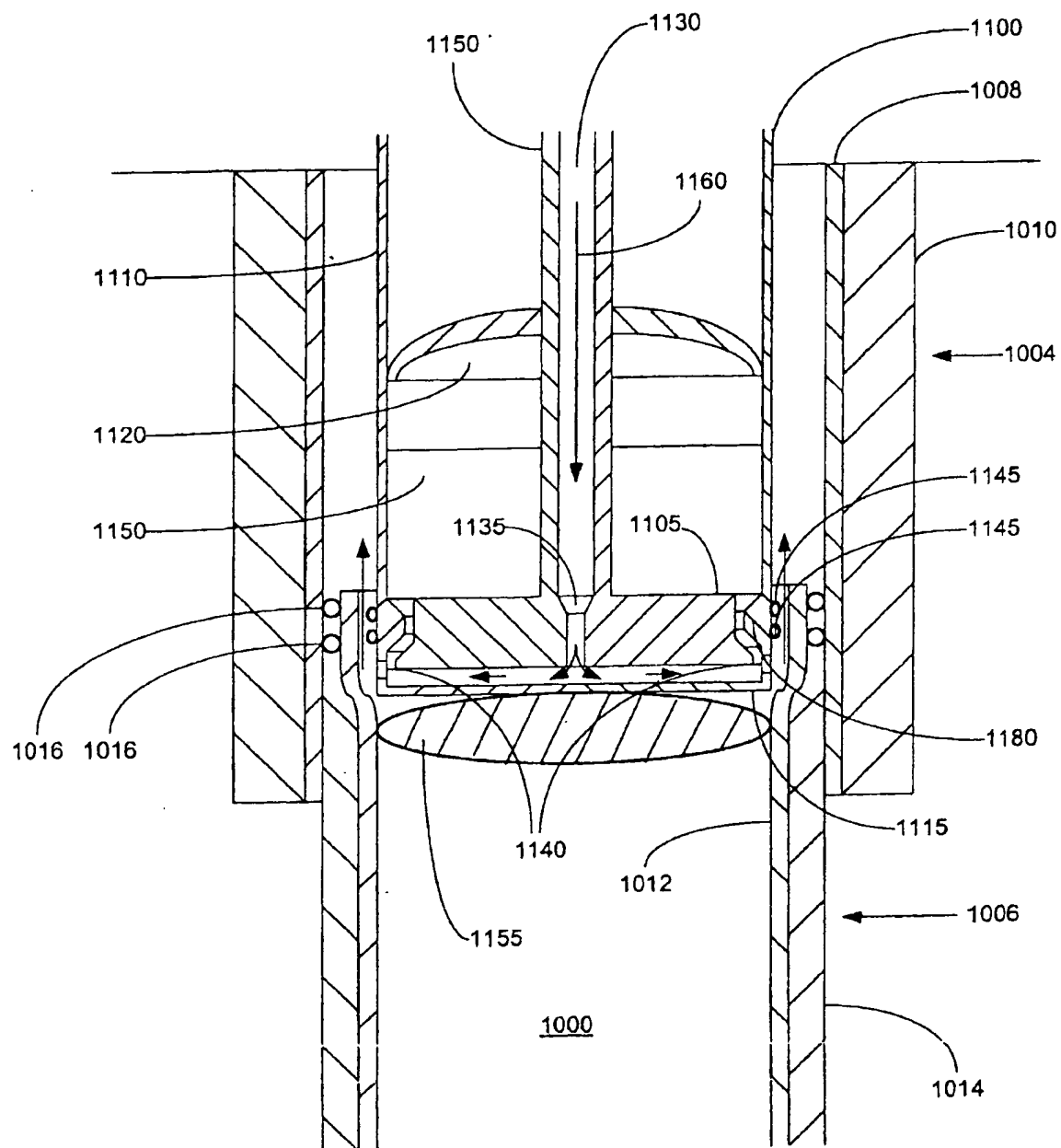


FIGURE 10c

17/75

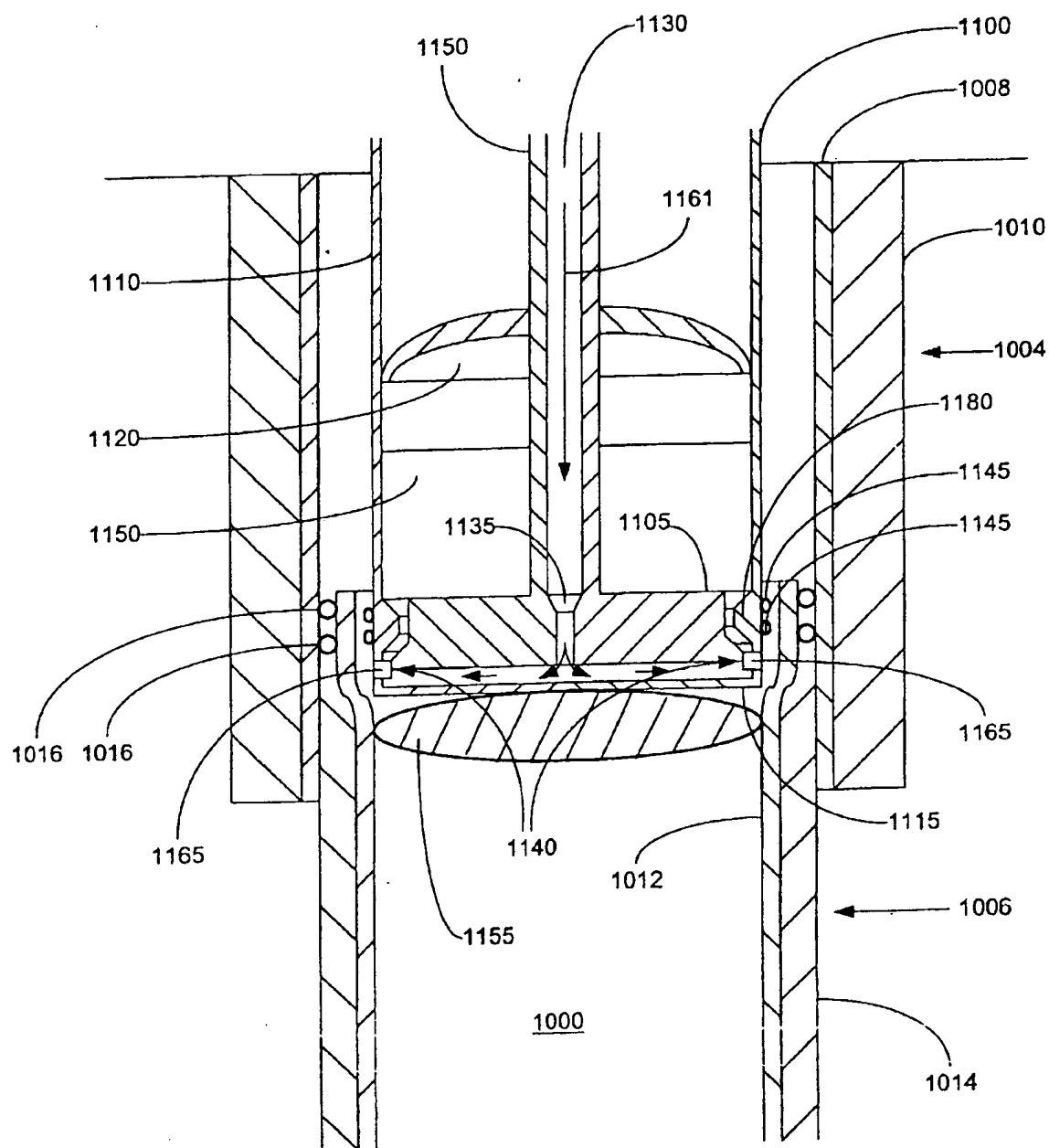


FIGURE 10d

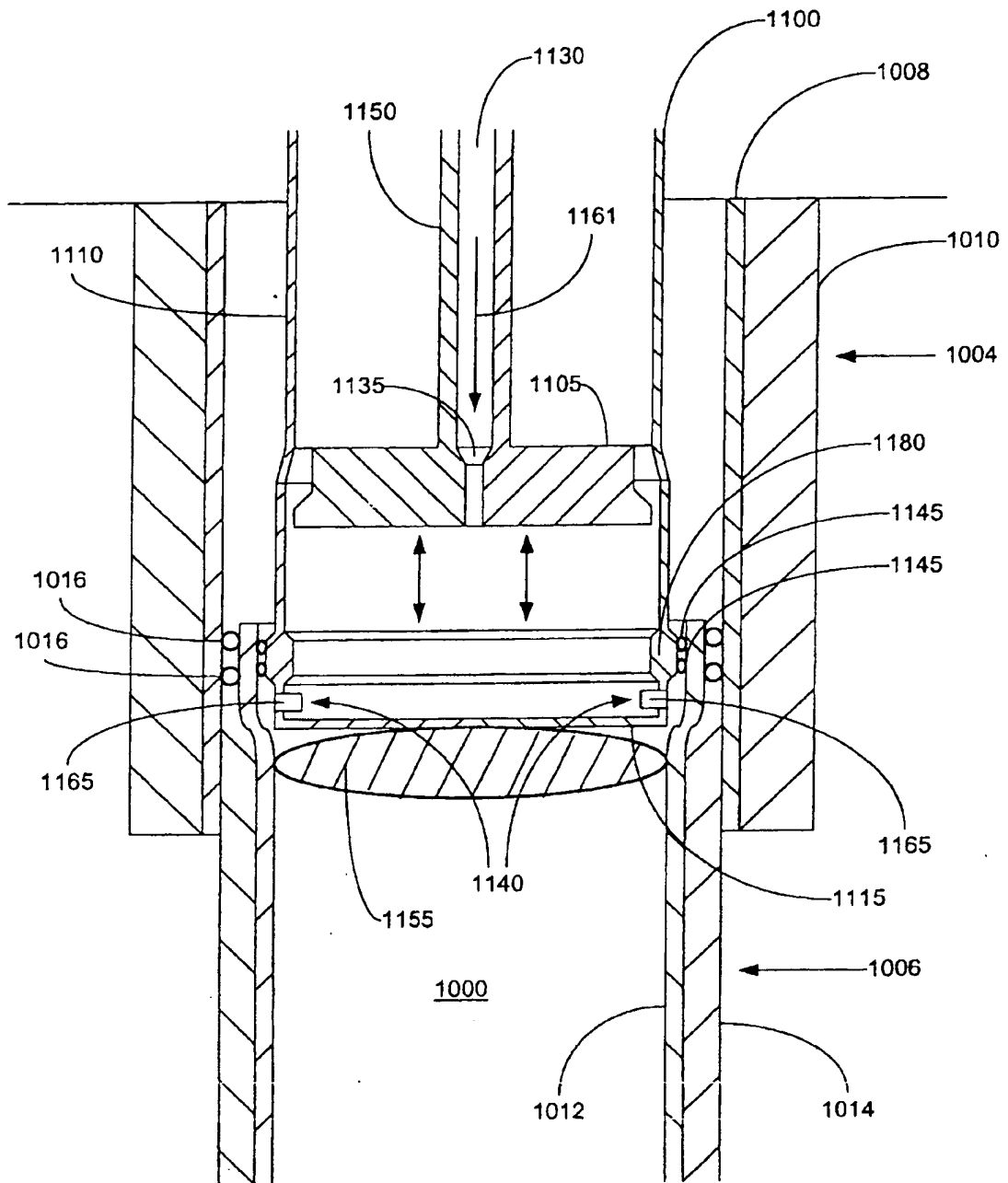


FIGURE 10e

**FIGURE 10f**

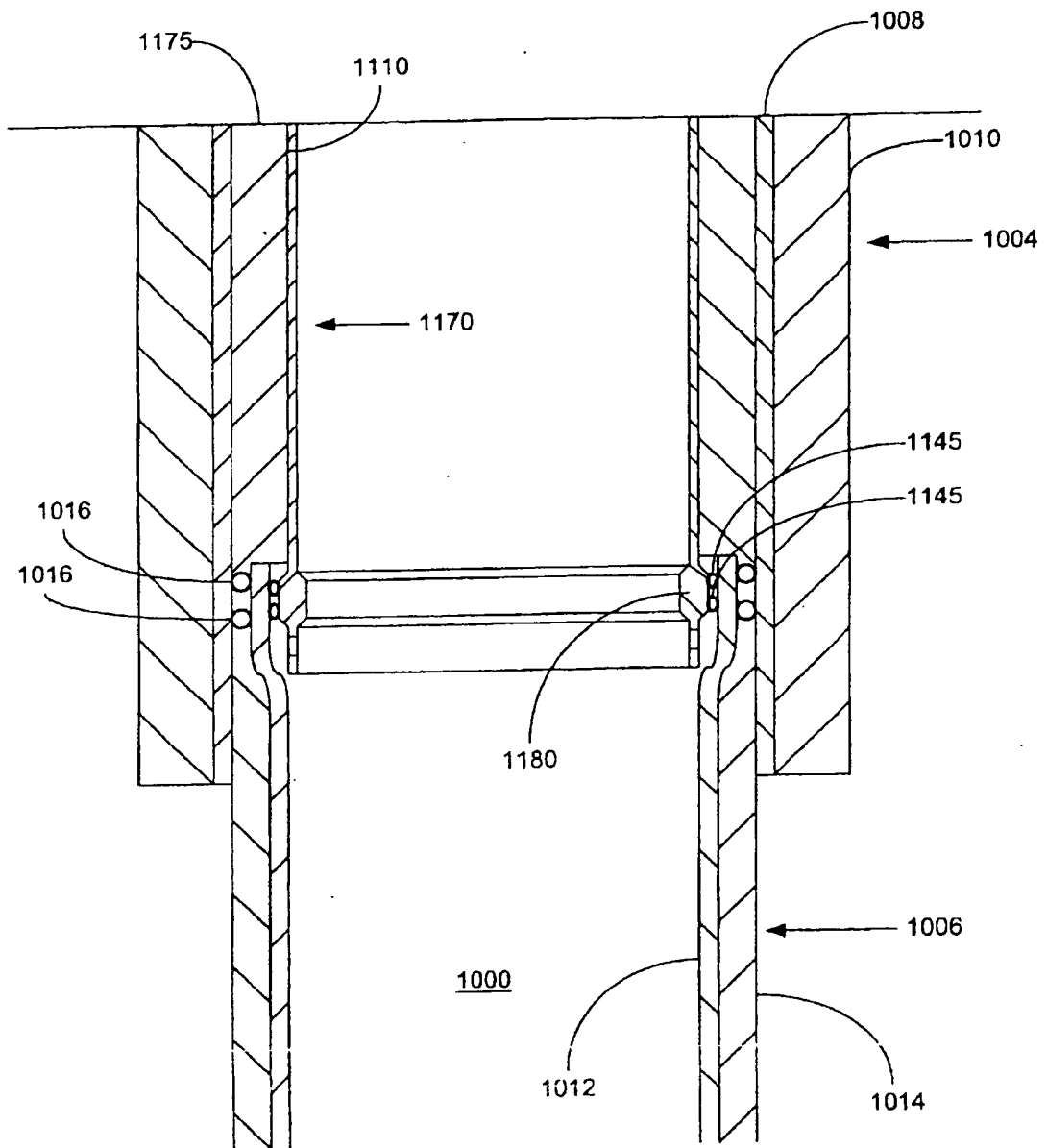


FIGURE 10g

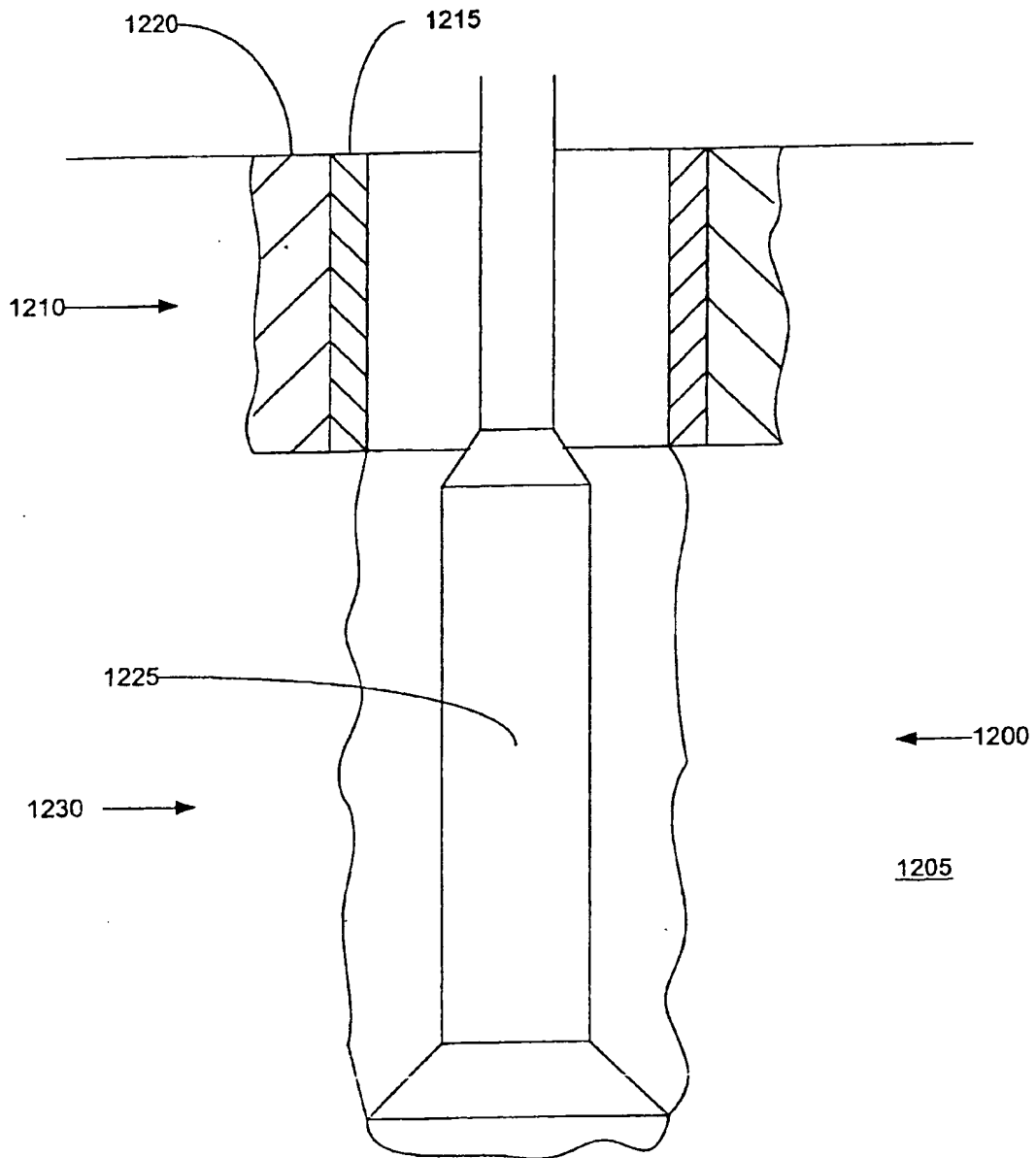


FIGURE 11a

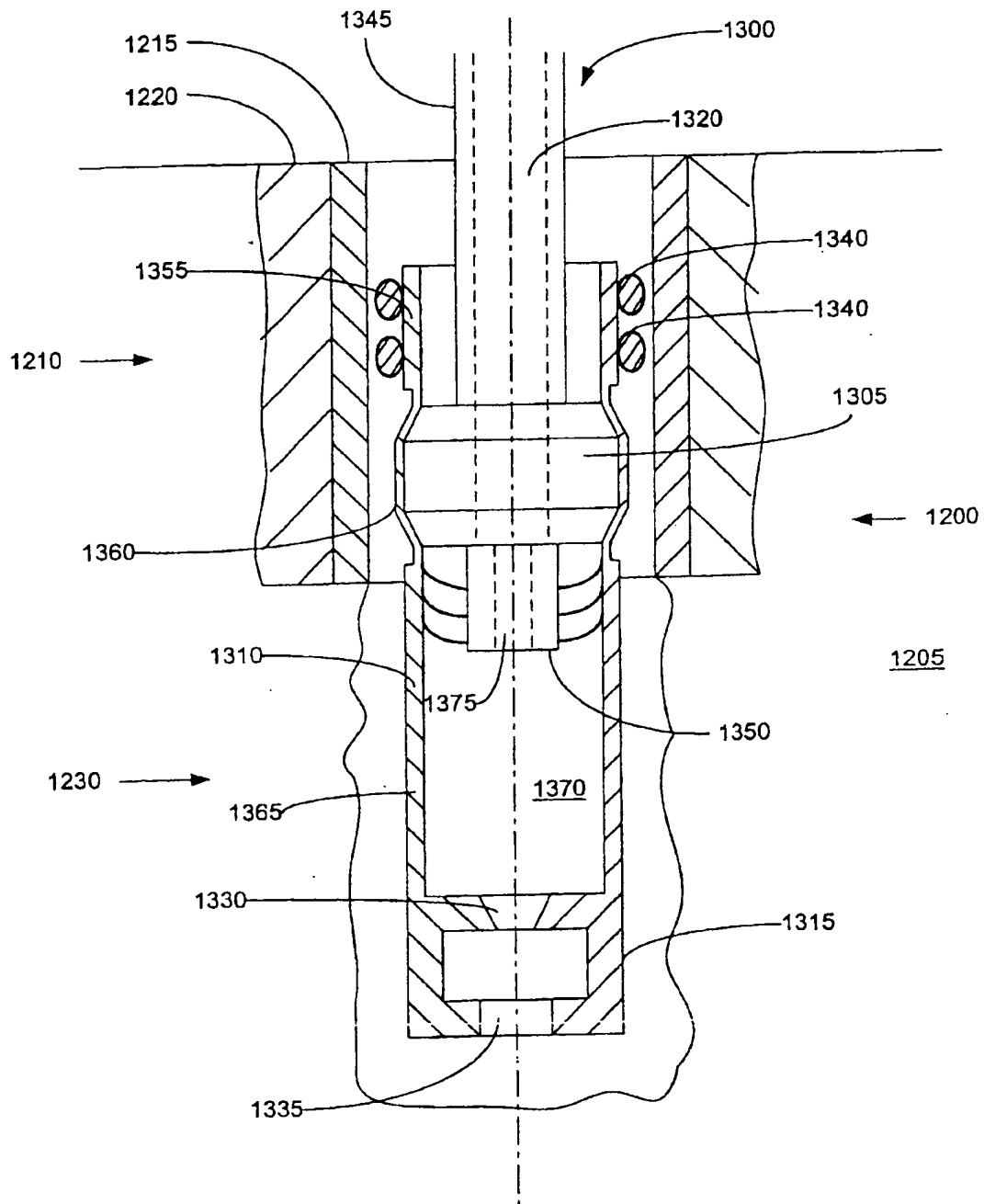


FIGURE 11b



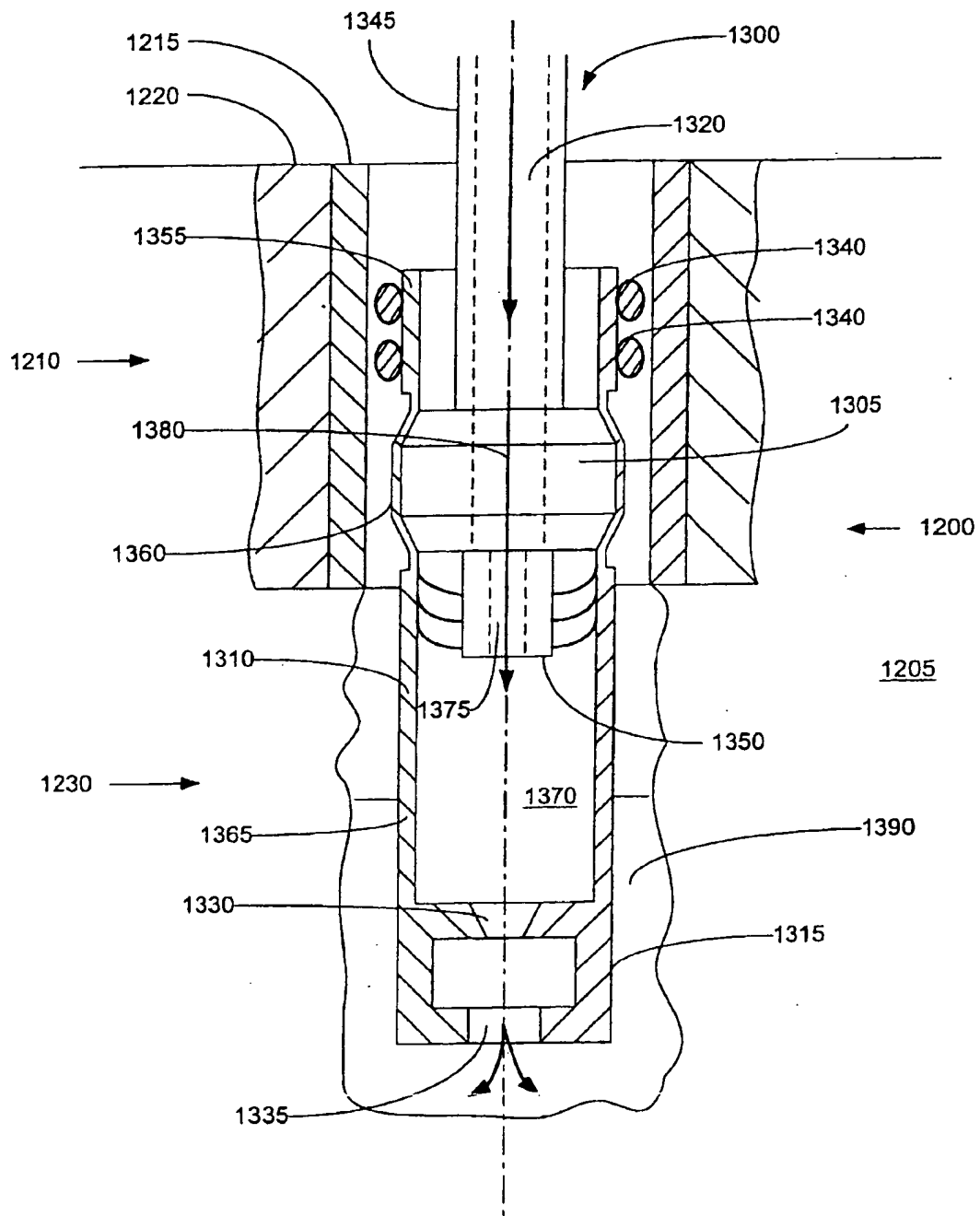


FIGURE 11c

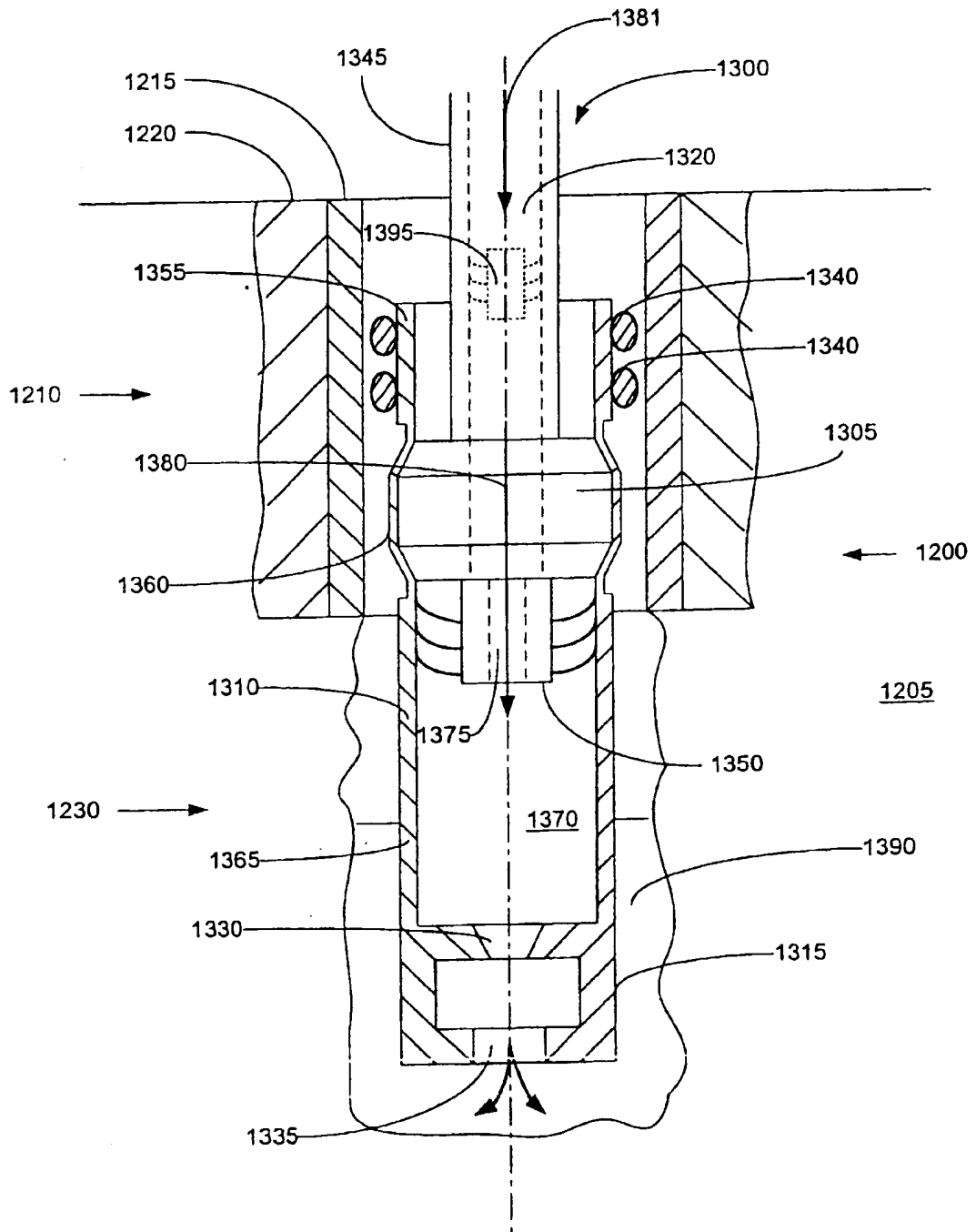


FIGURE 11d

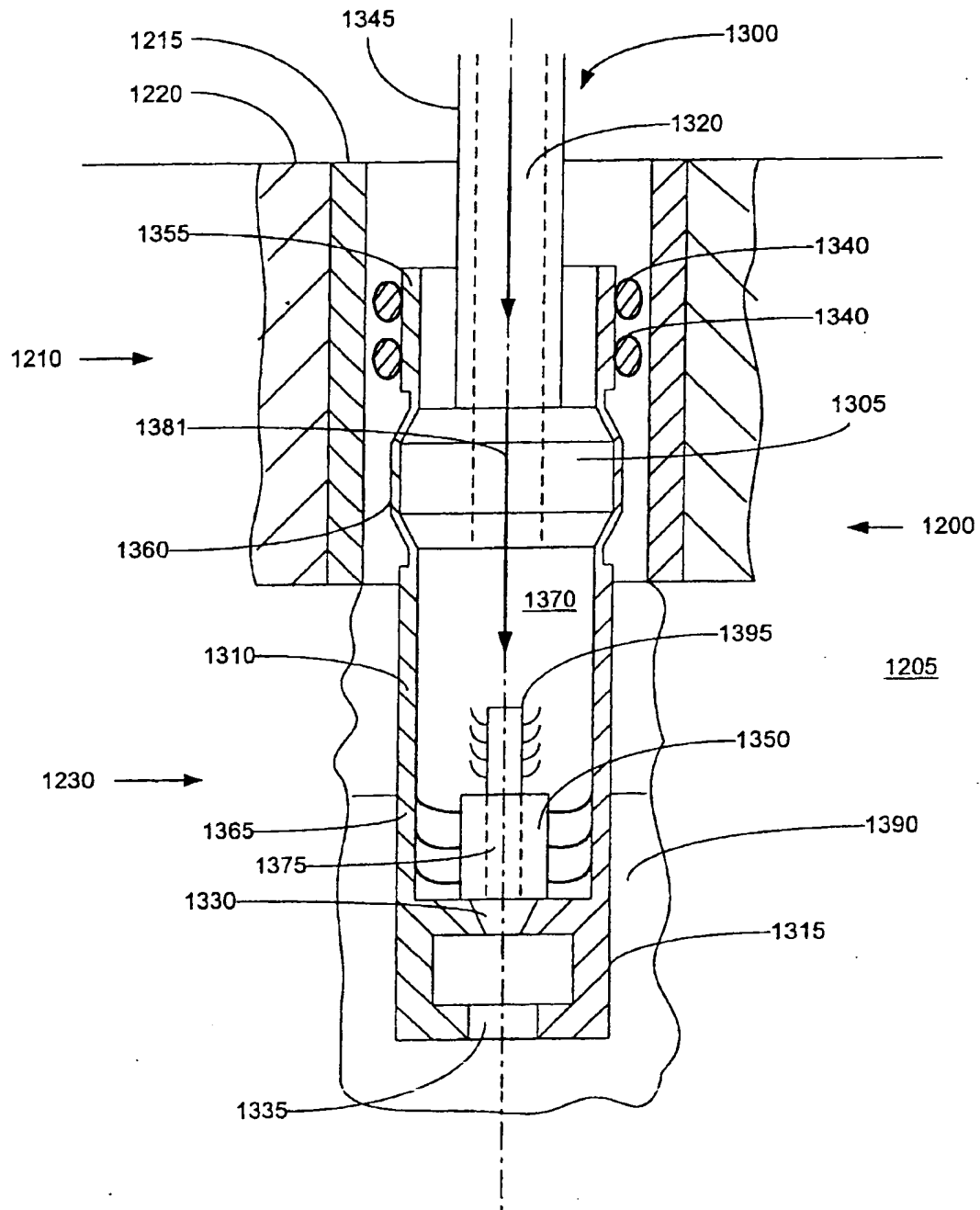


FIGURE 11e

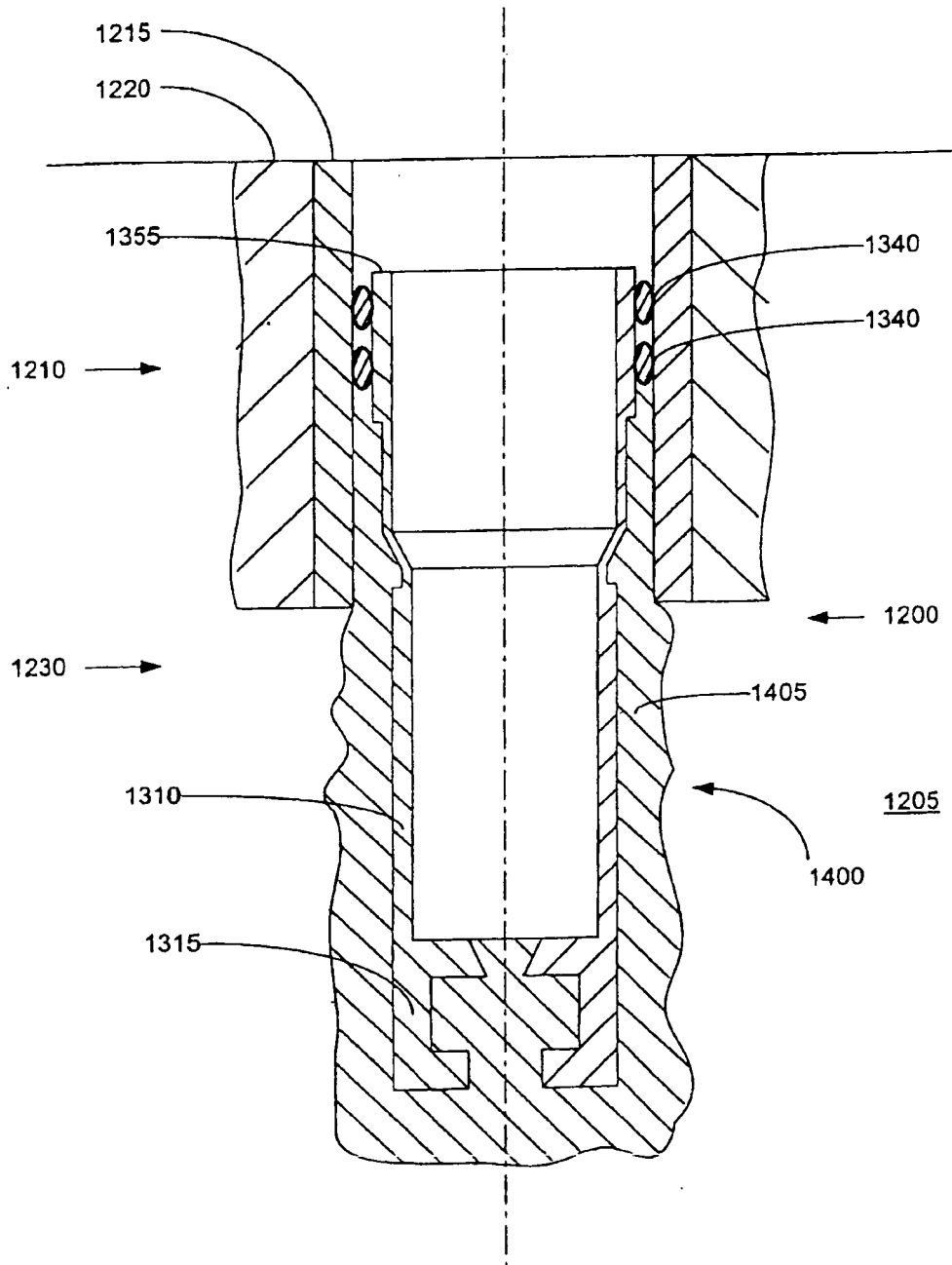


FIGURE 11f

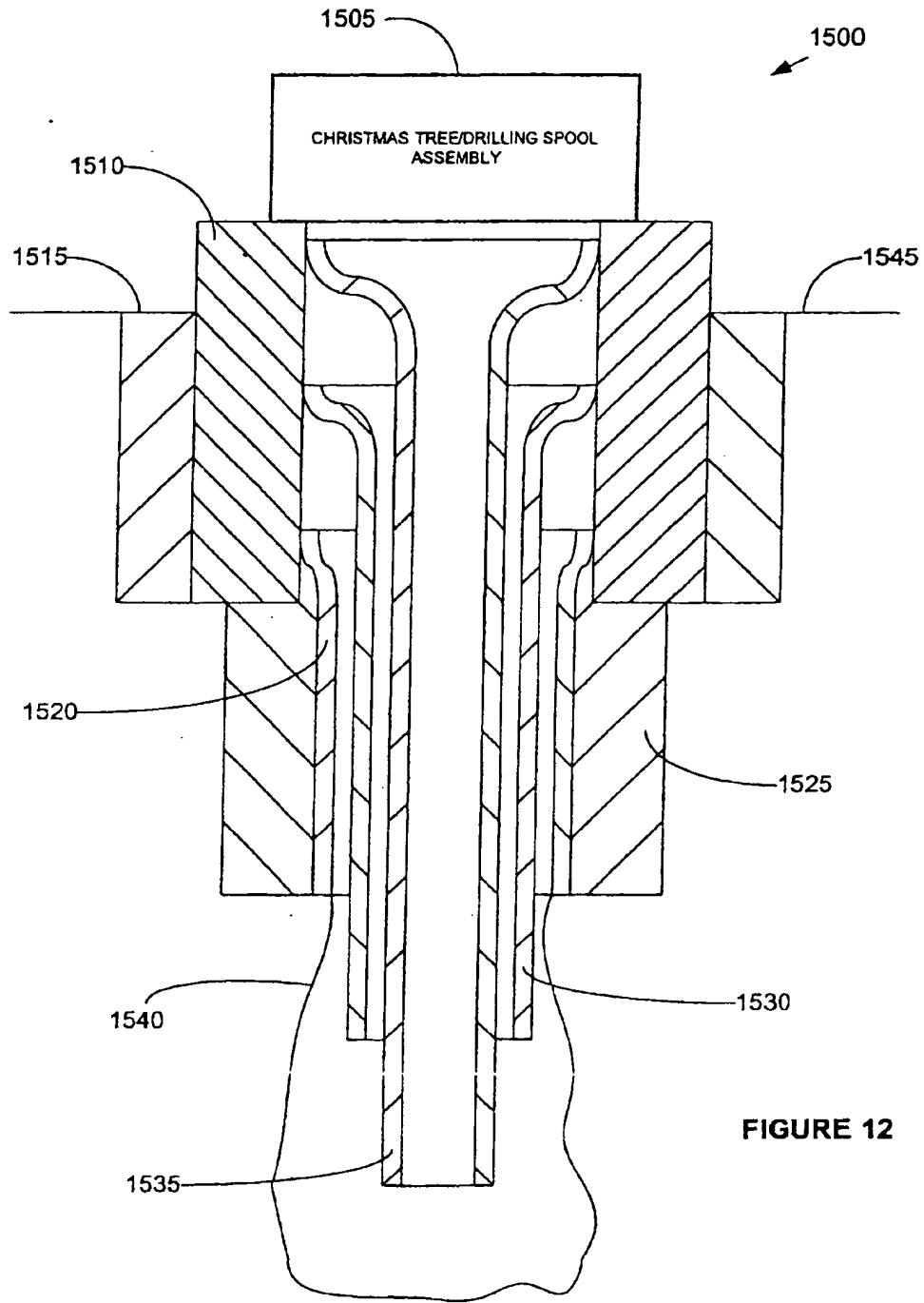


FIGURE 12

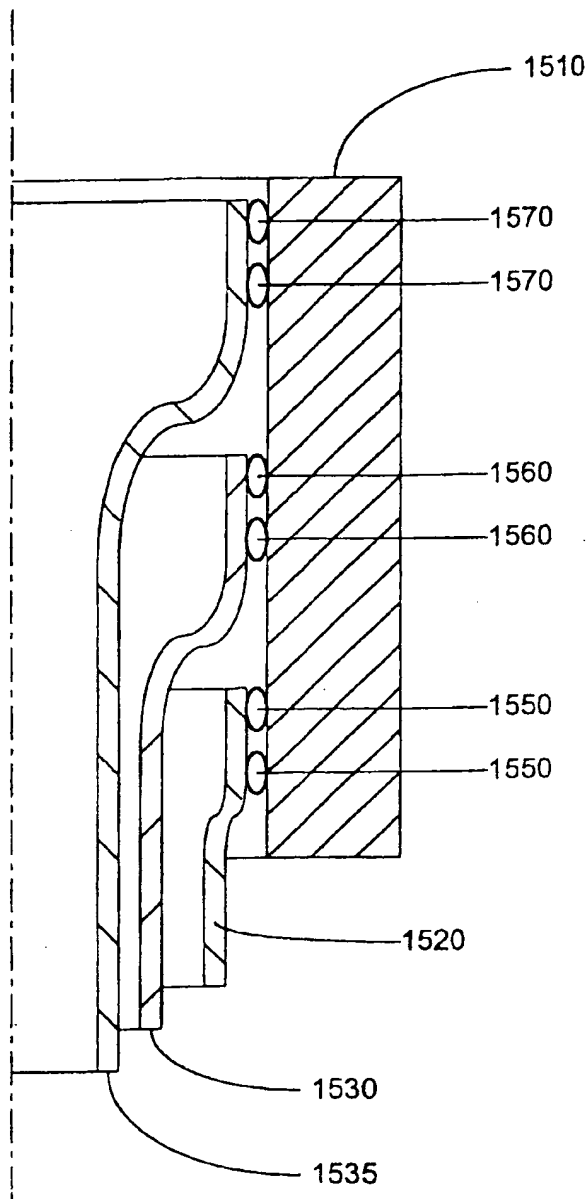


FIGURE 13

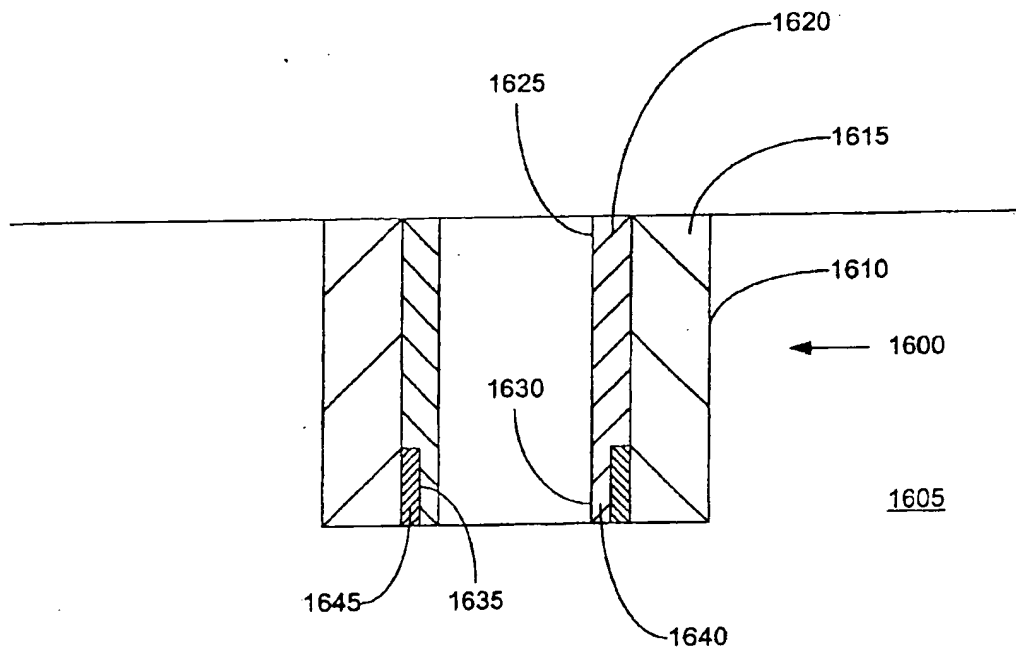


FIGURE 14a

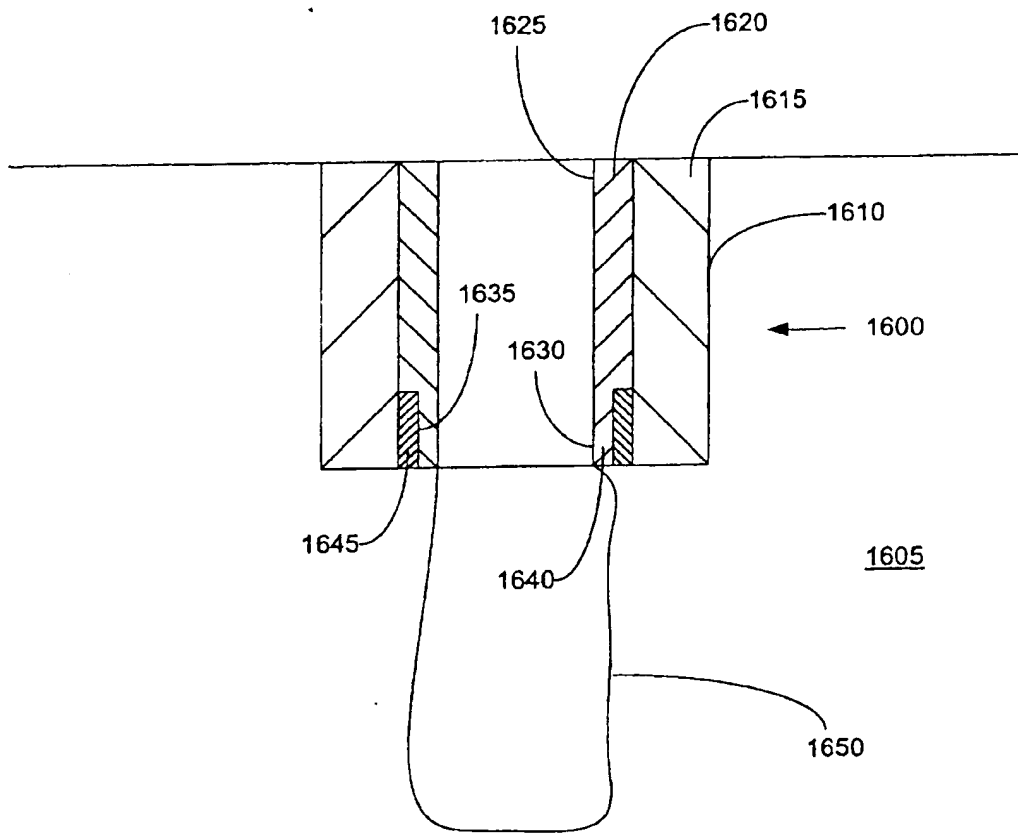


FIGURE 14b



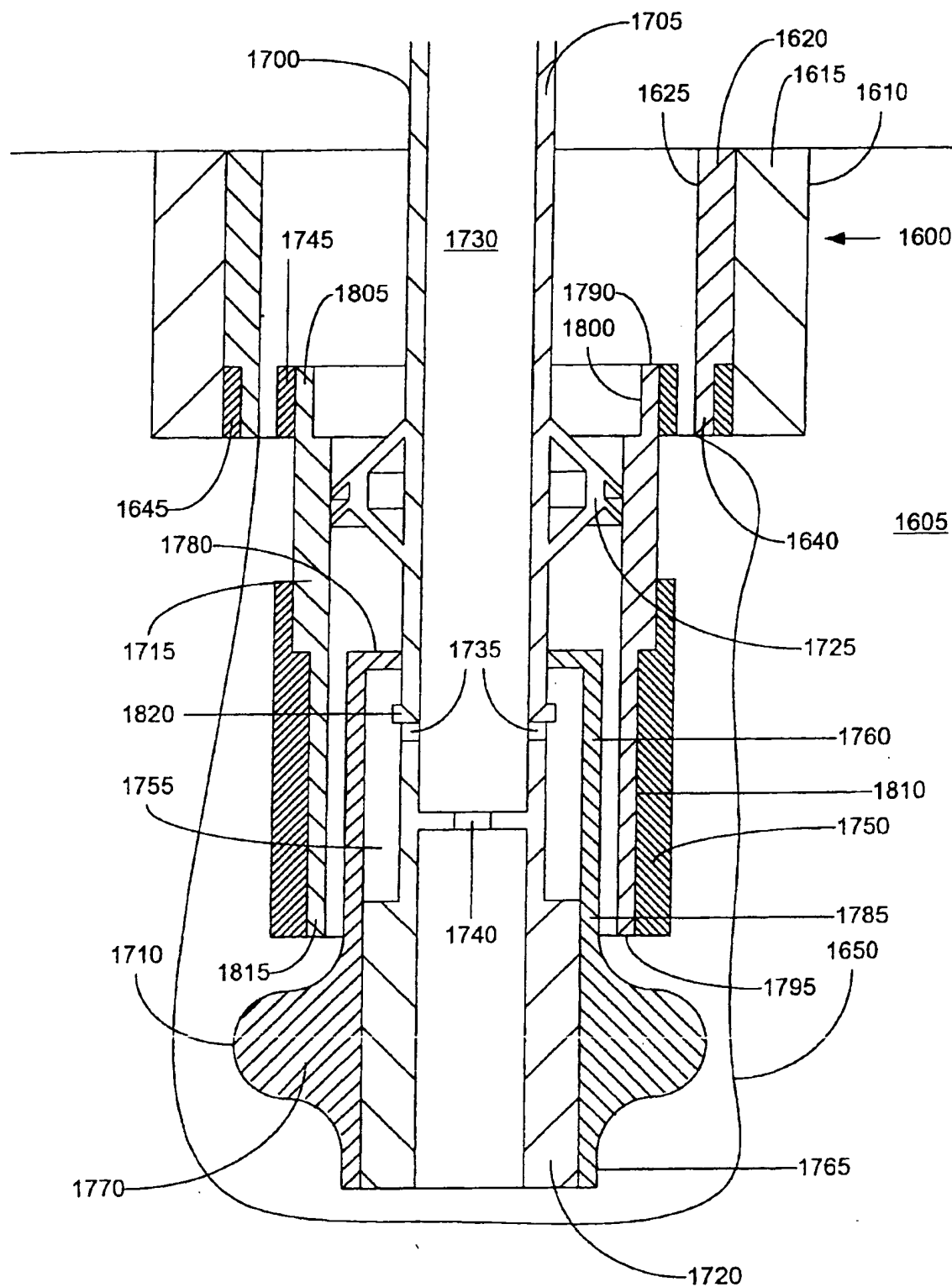


FIGURE 14c

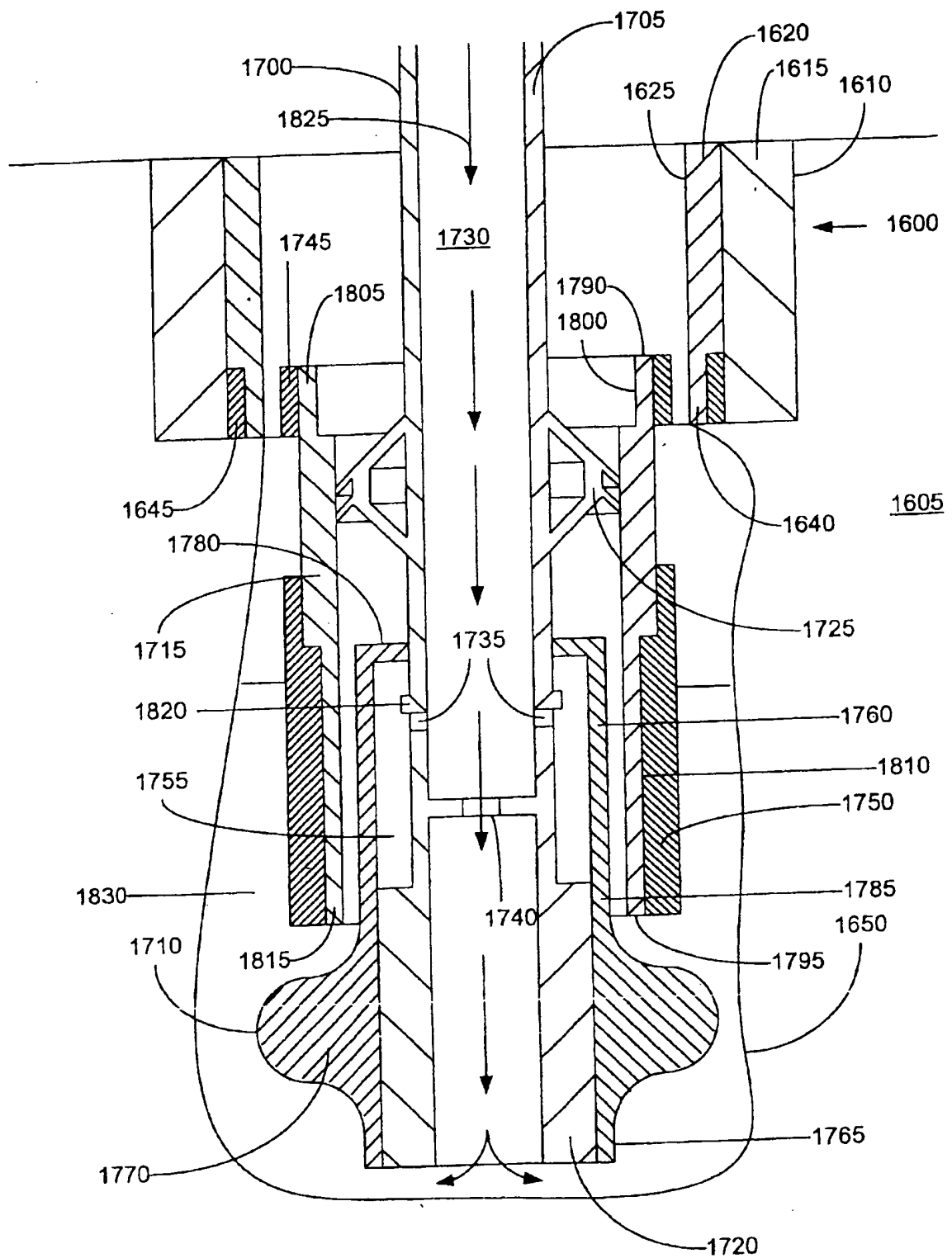


FIGURE 14d.

33/75

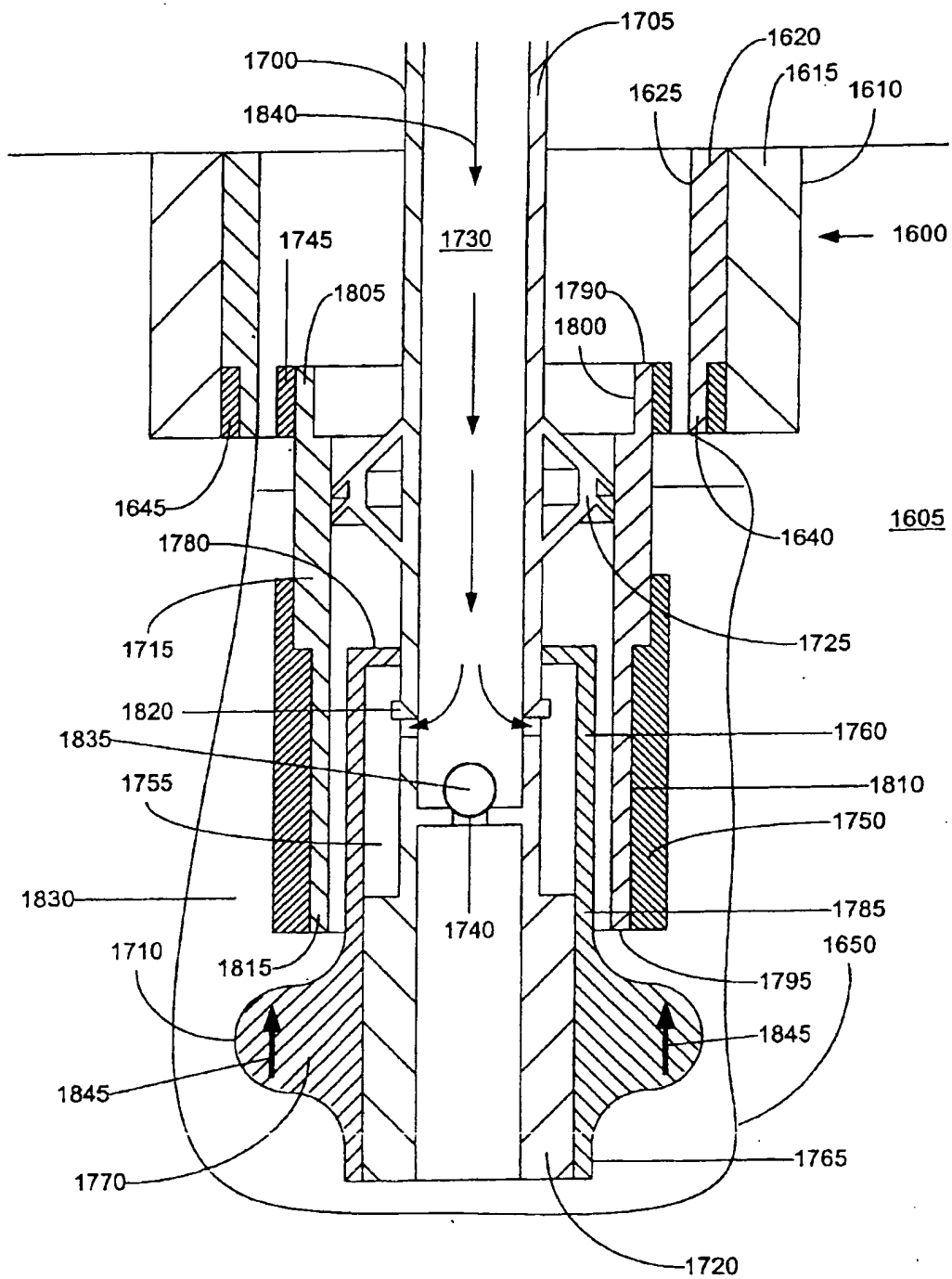


FIGURE 14e

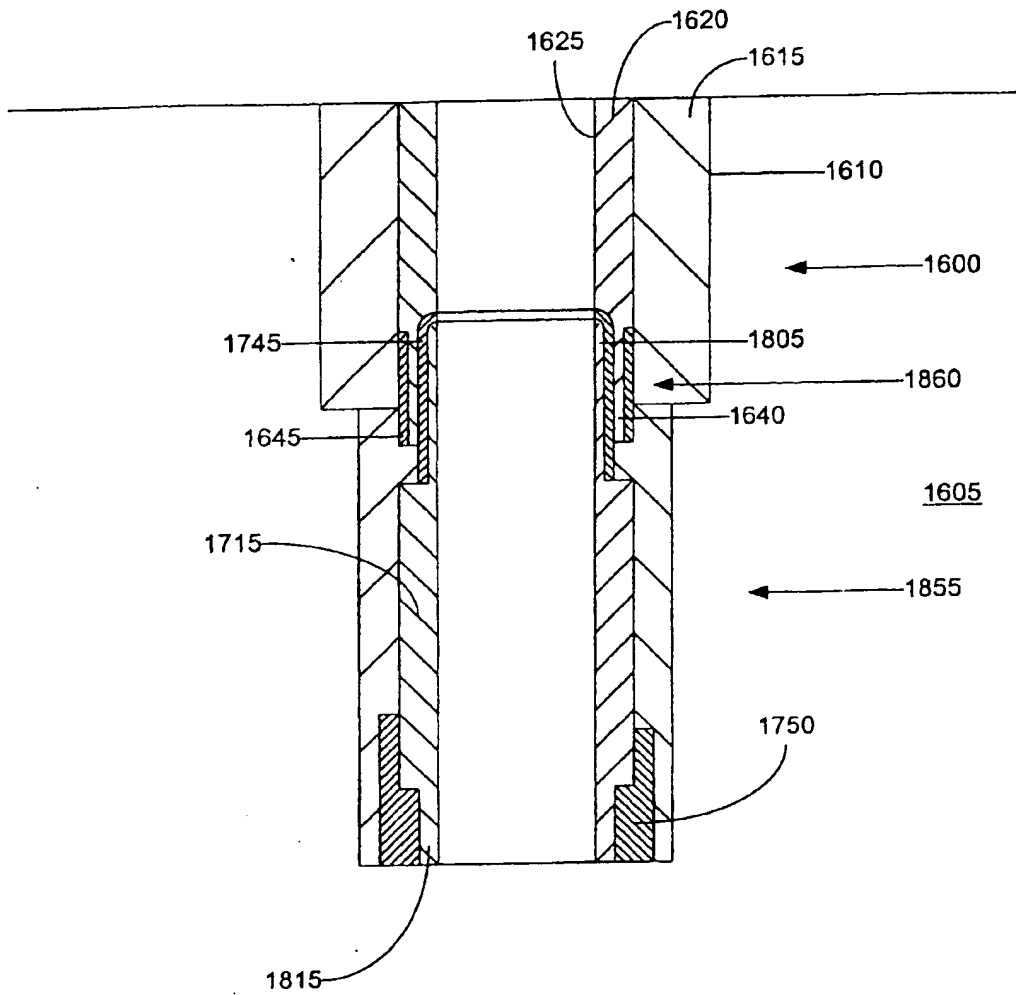


FIGURE 14f

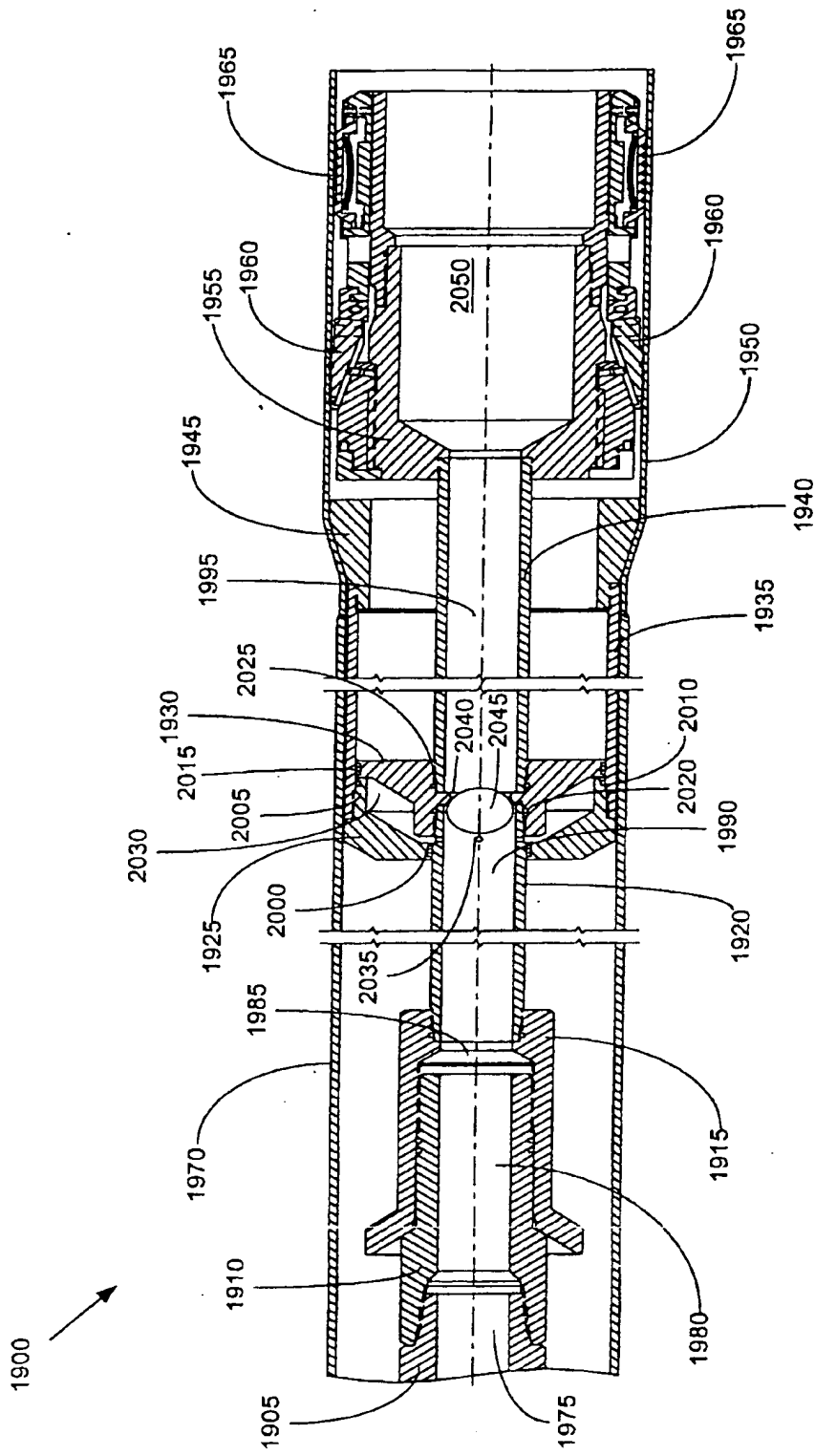


FIGURE 15

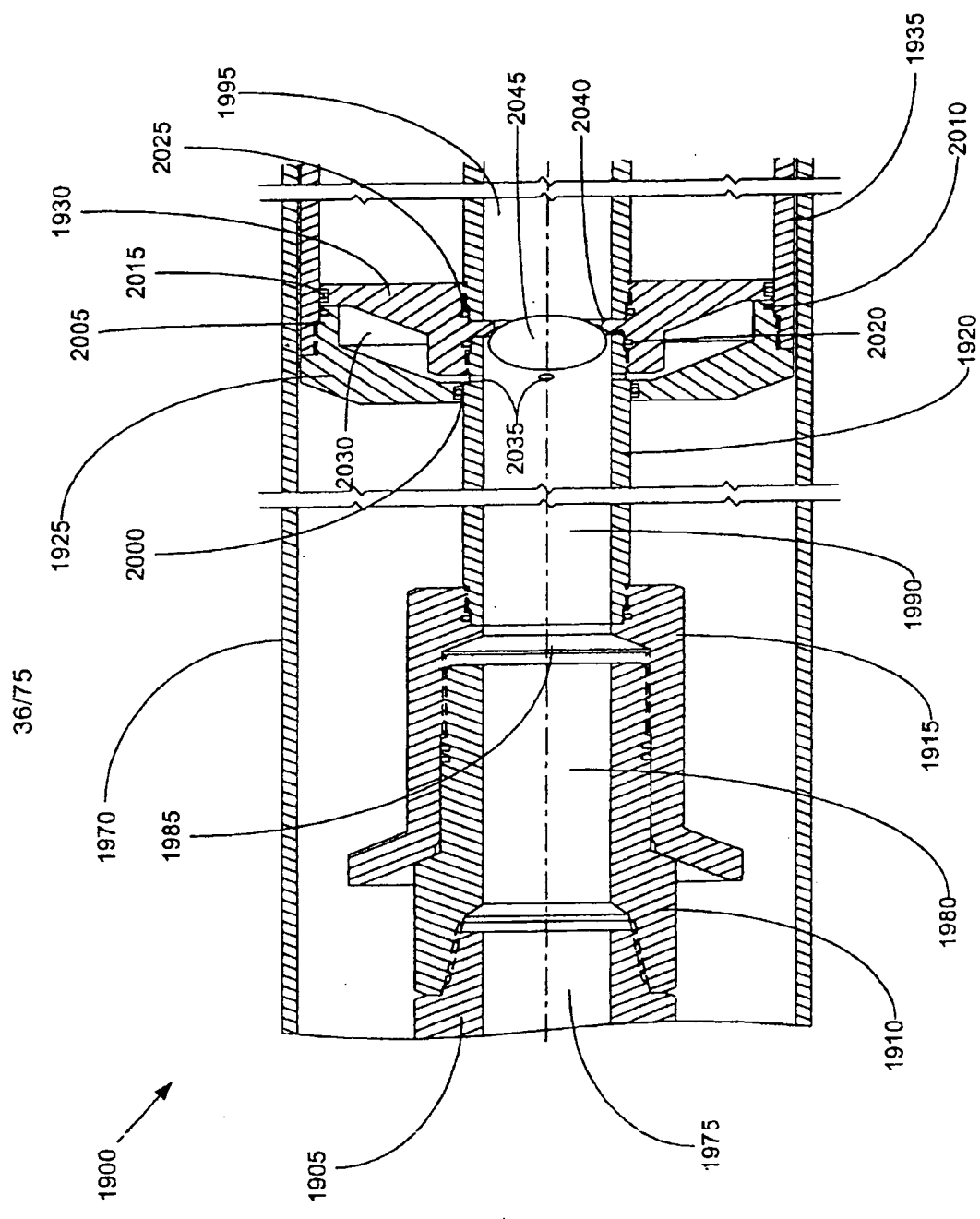


FIGURE 15a

3775

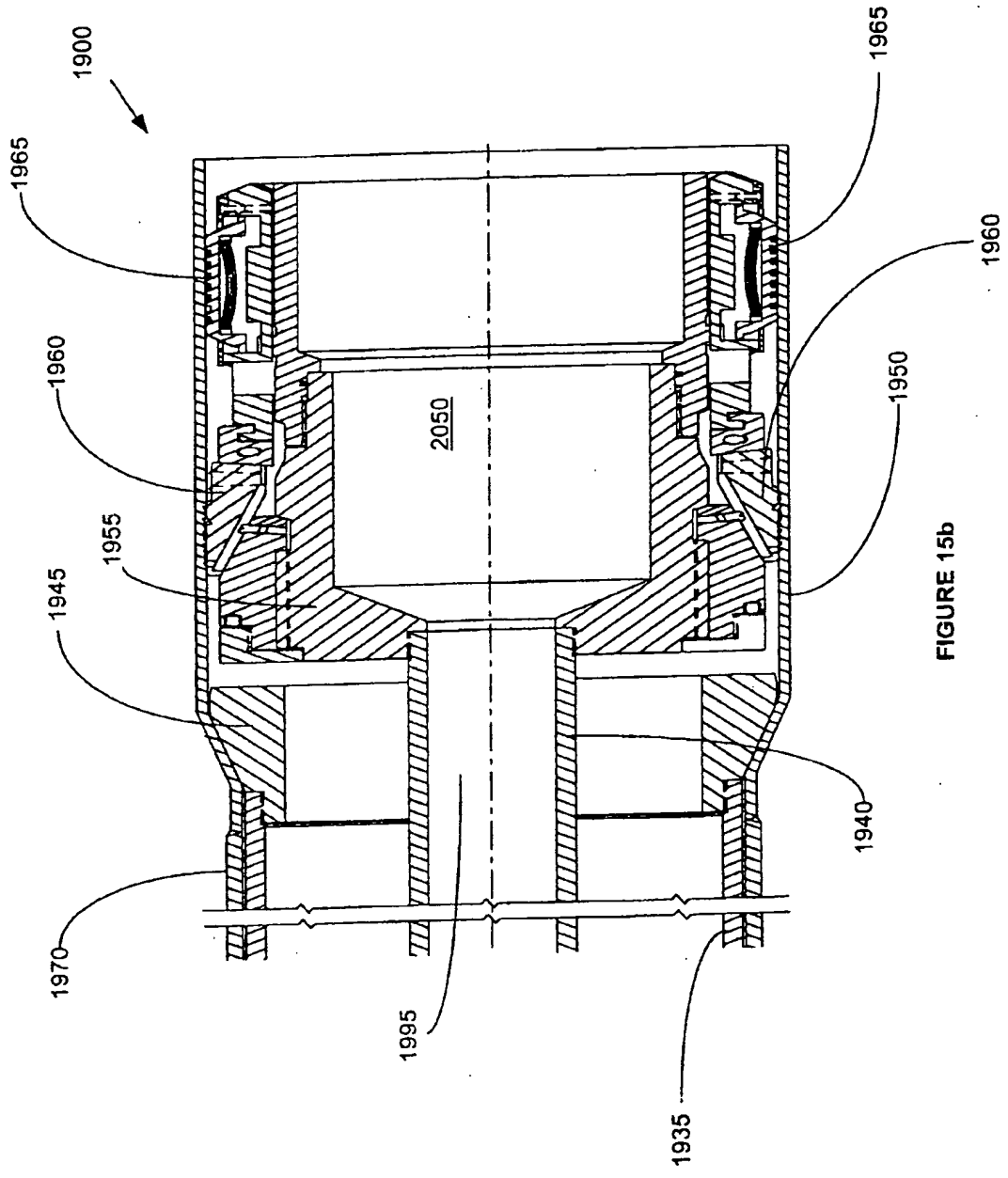
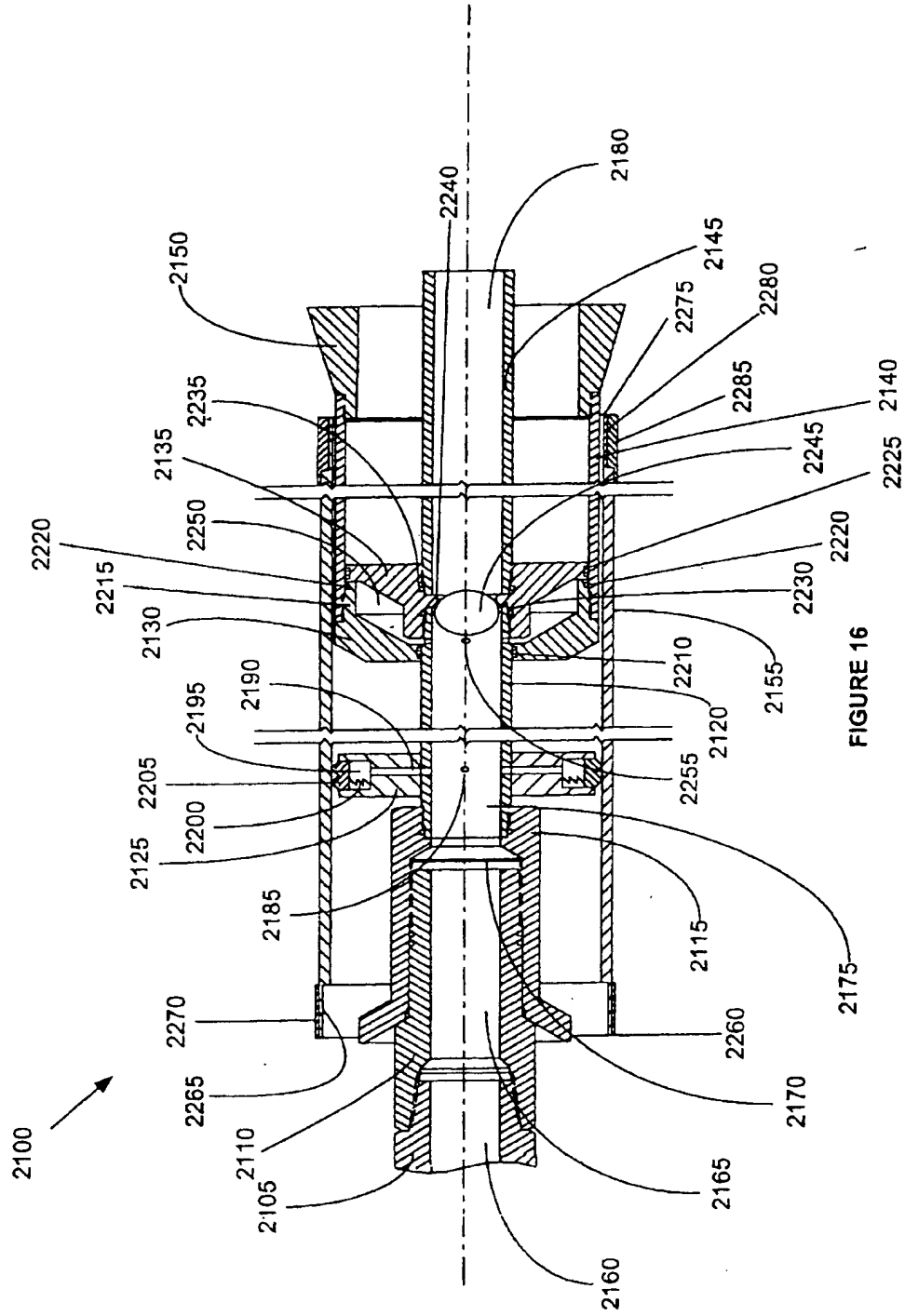


FIGURE 15b





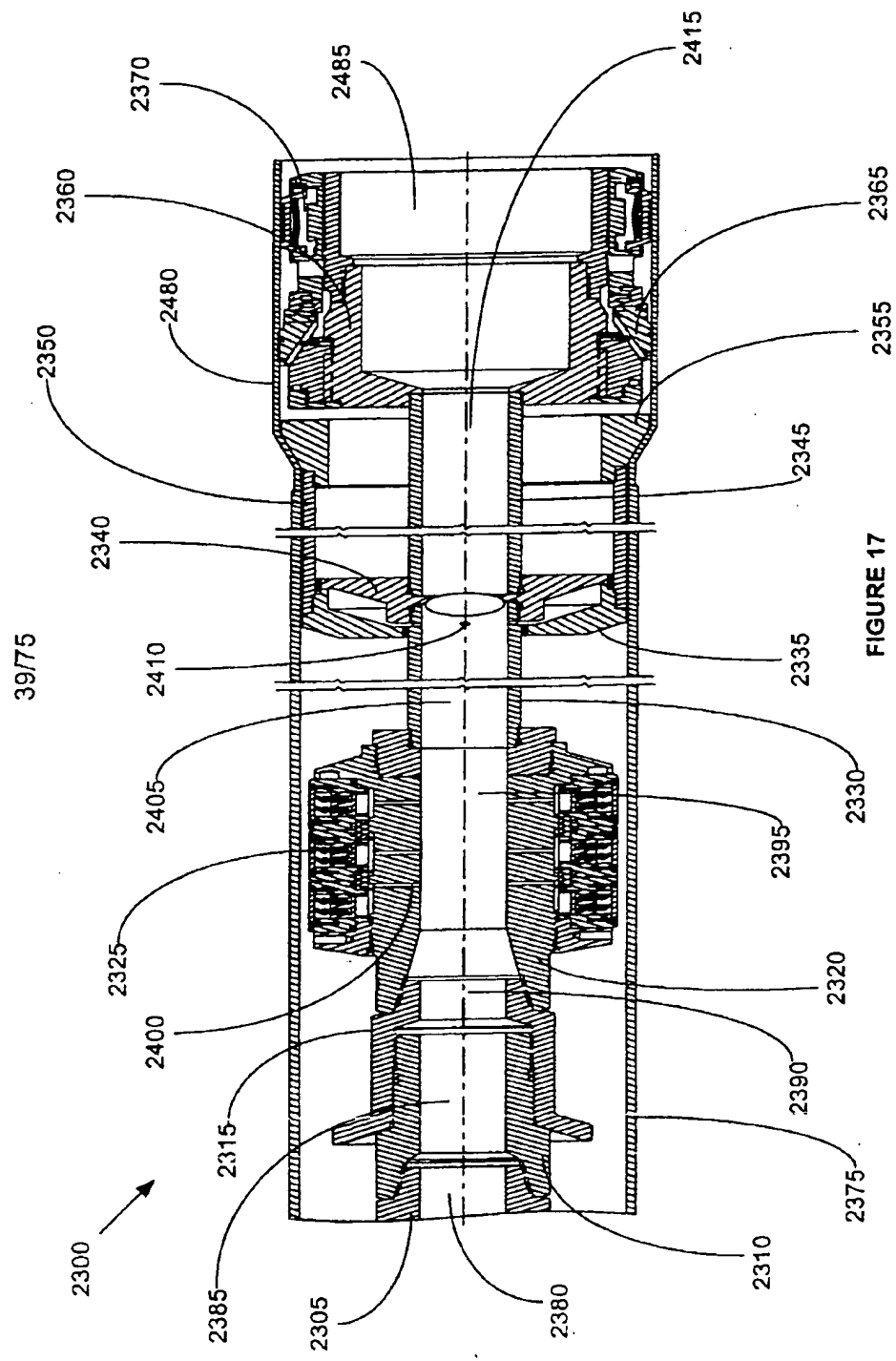


FIGURE 17

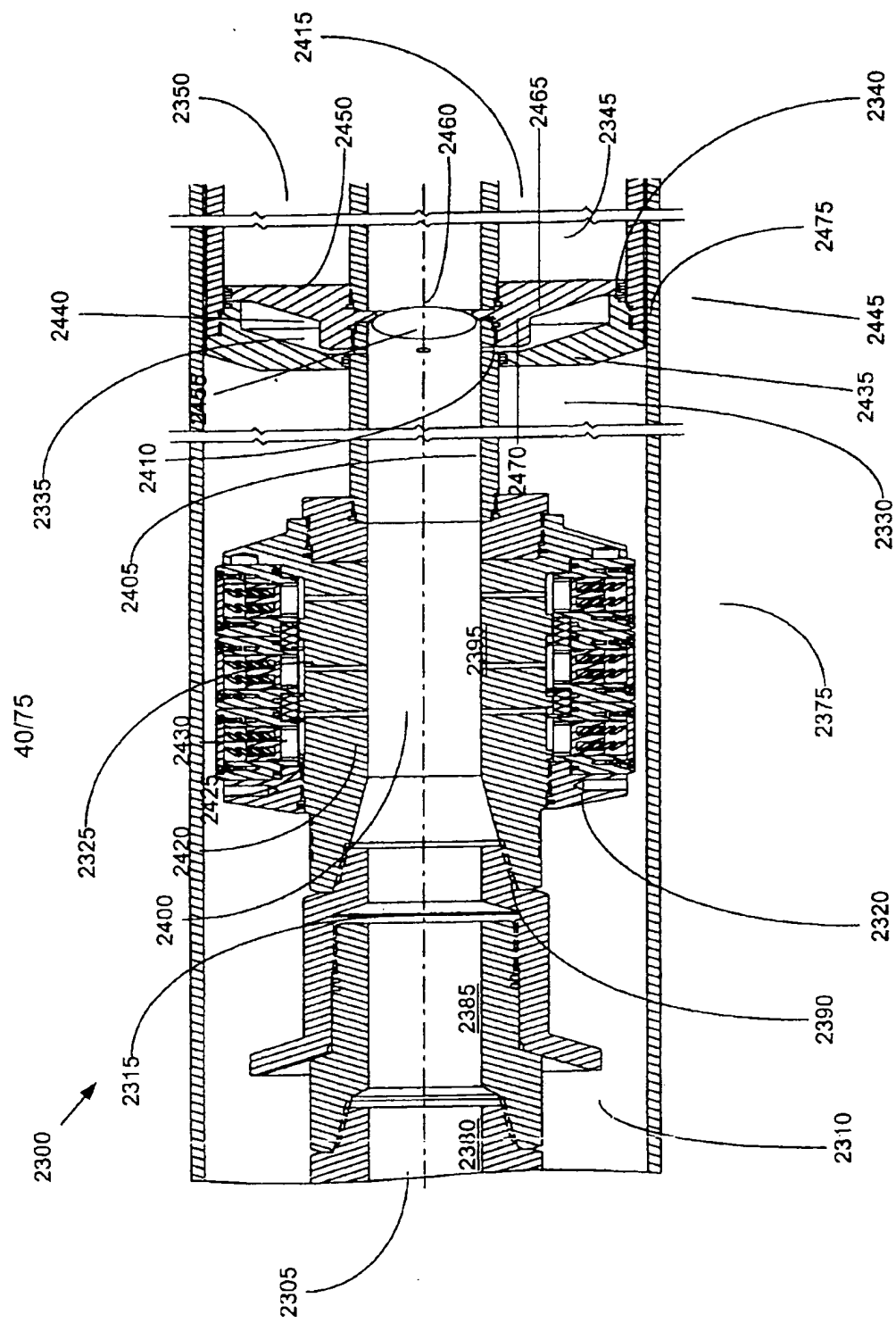


FIGURE 17a

41/75

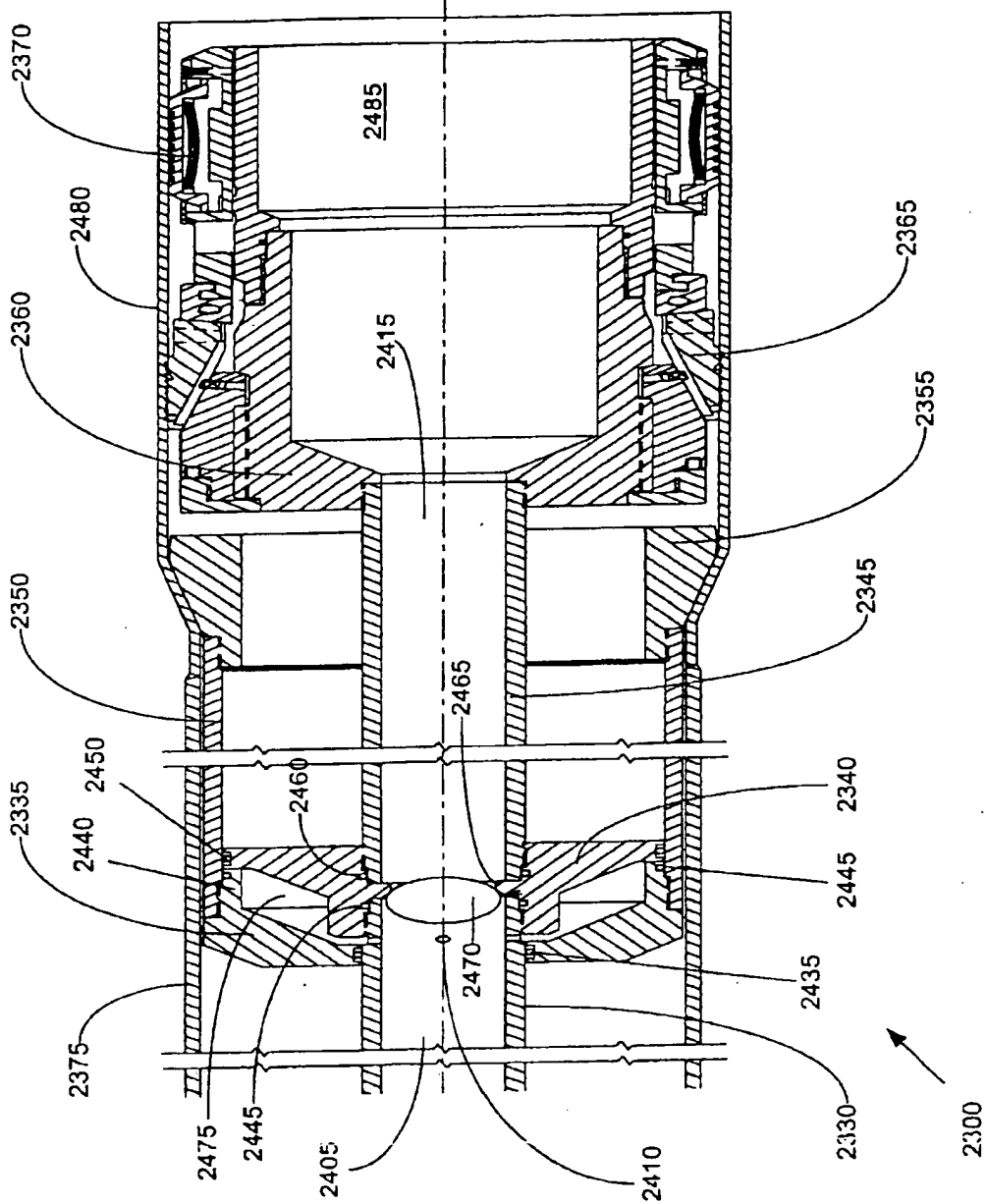


FIGURE 17b

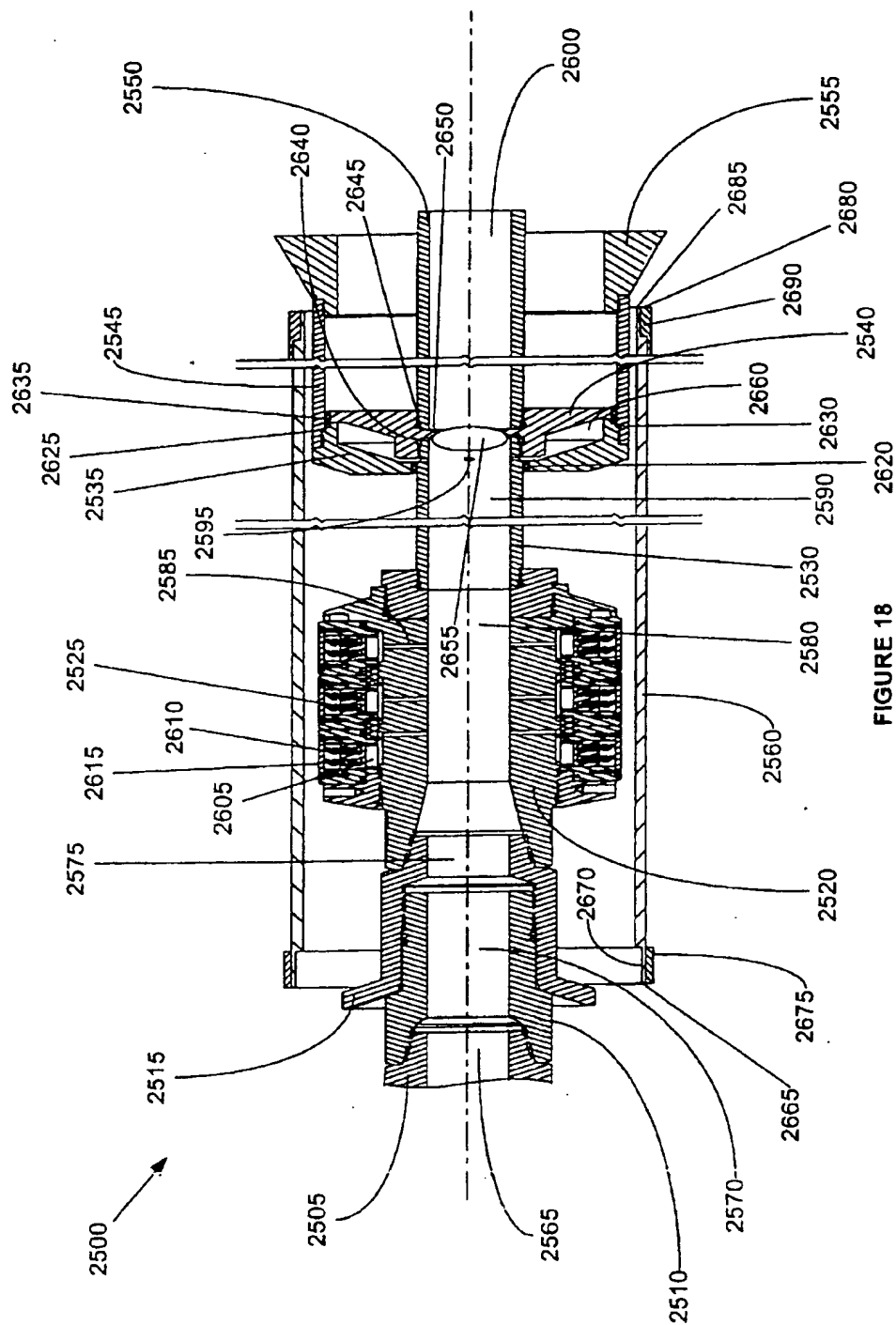


FIGURE 18

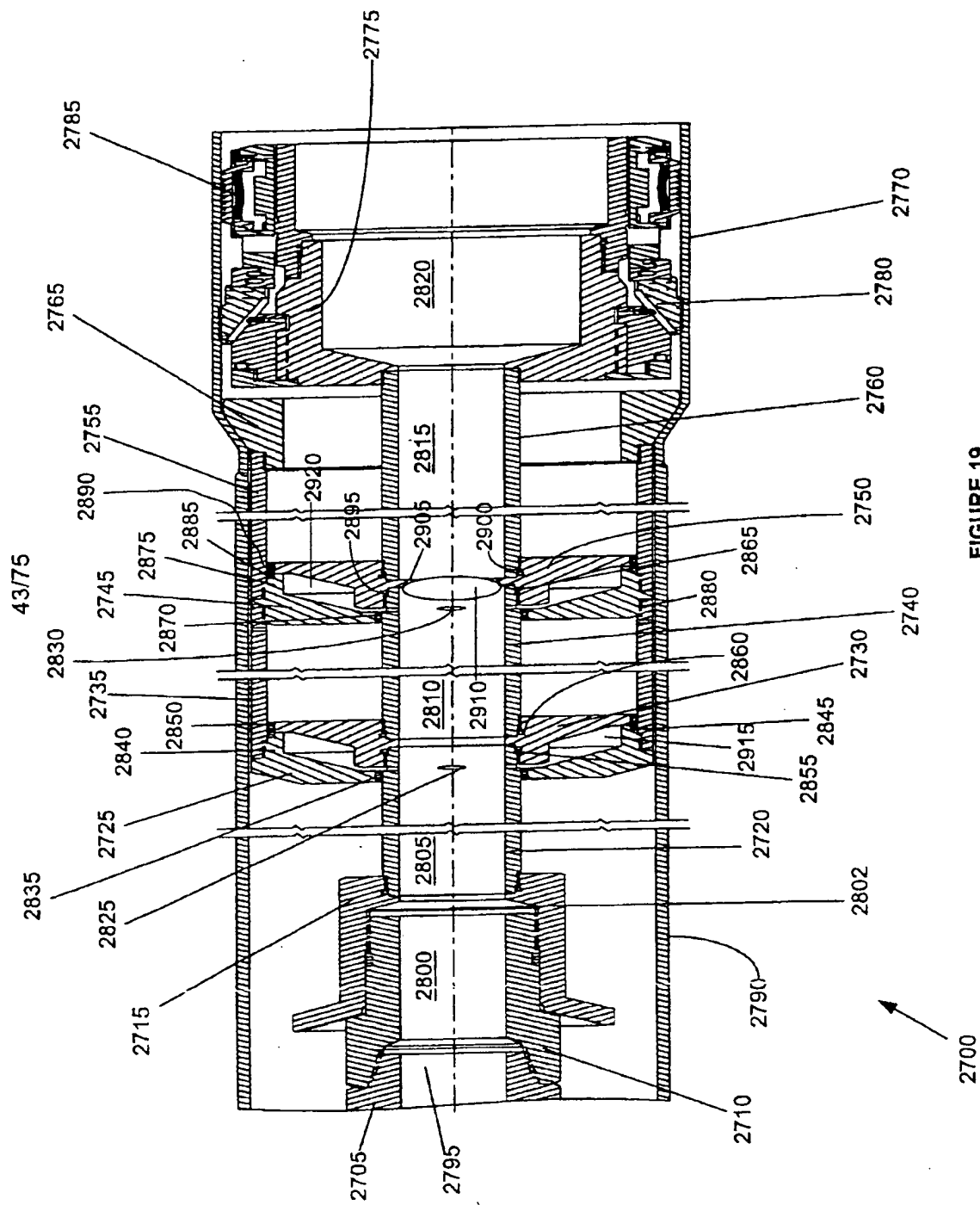


FIGURE 19

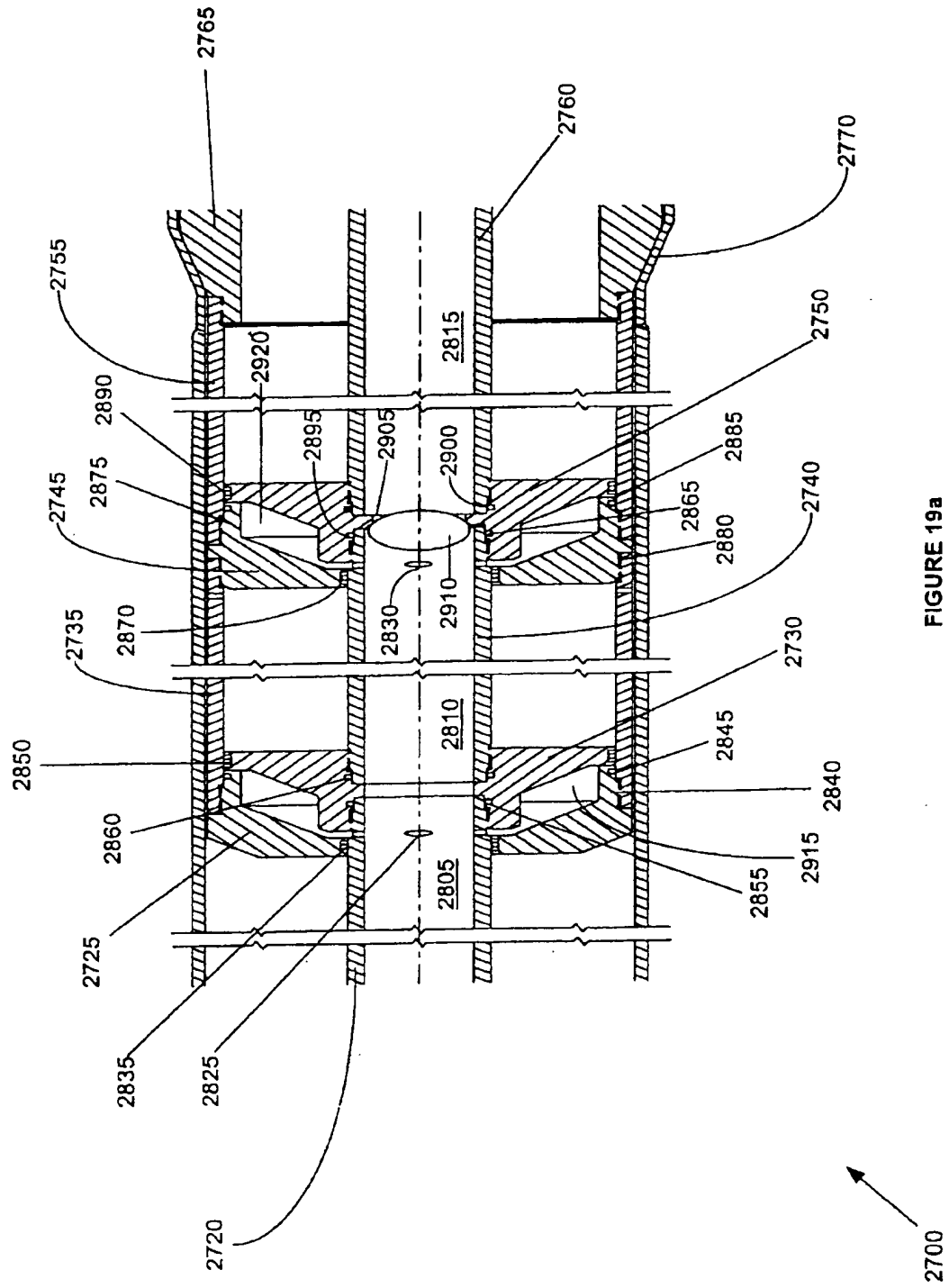


FIGURE 19a

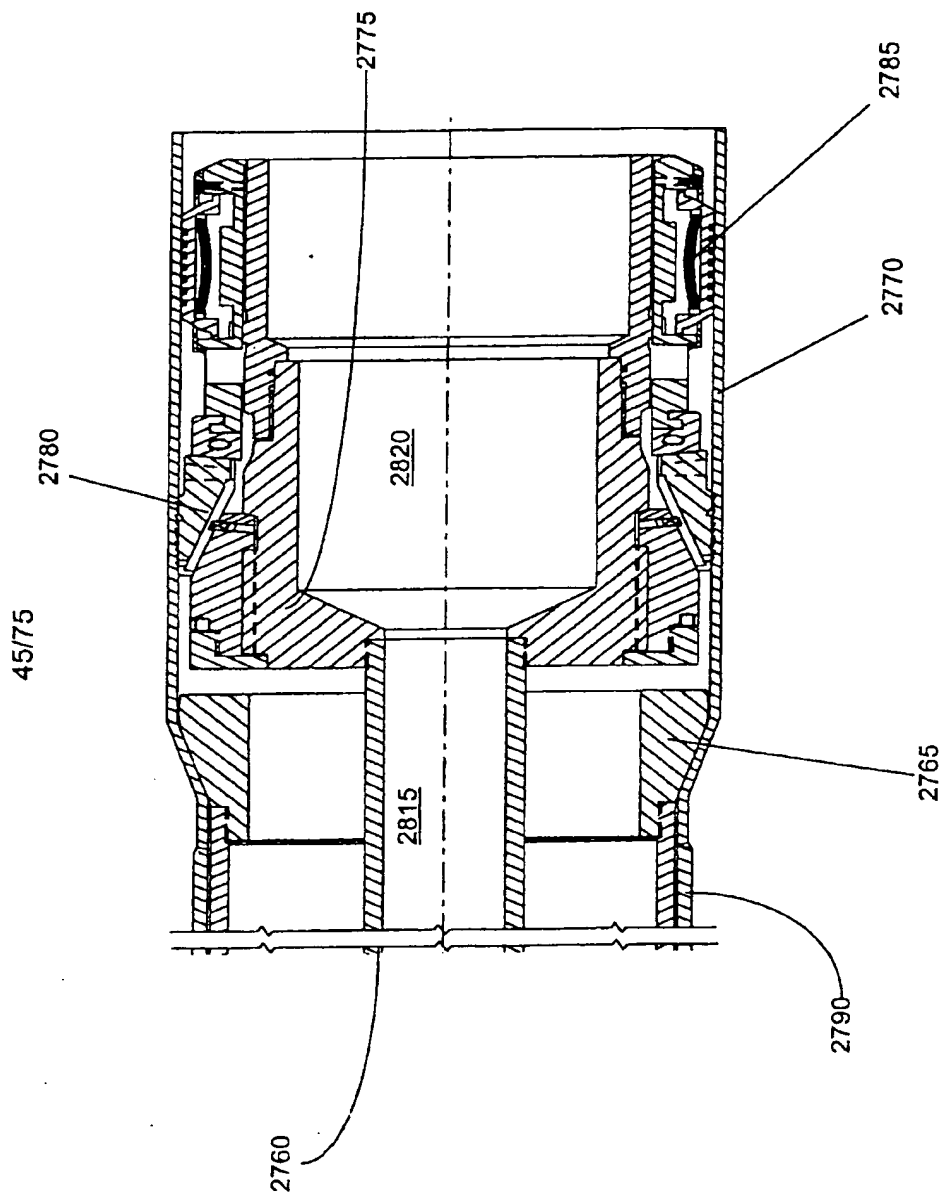


FIGURE 19b

46/75

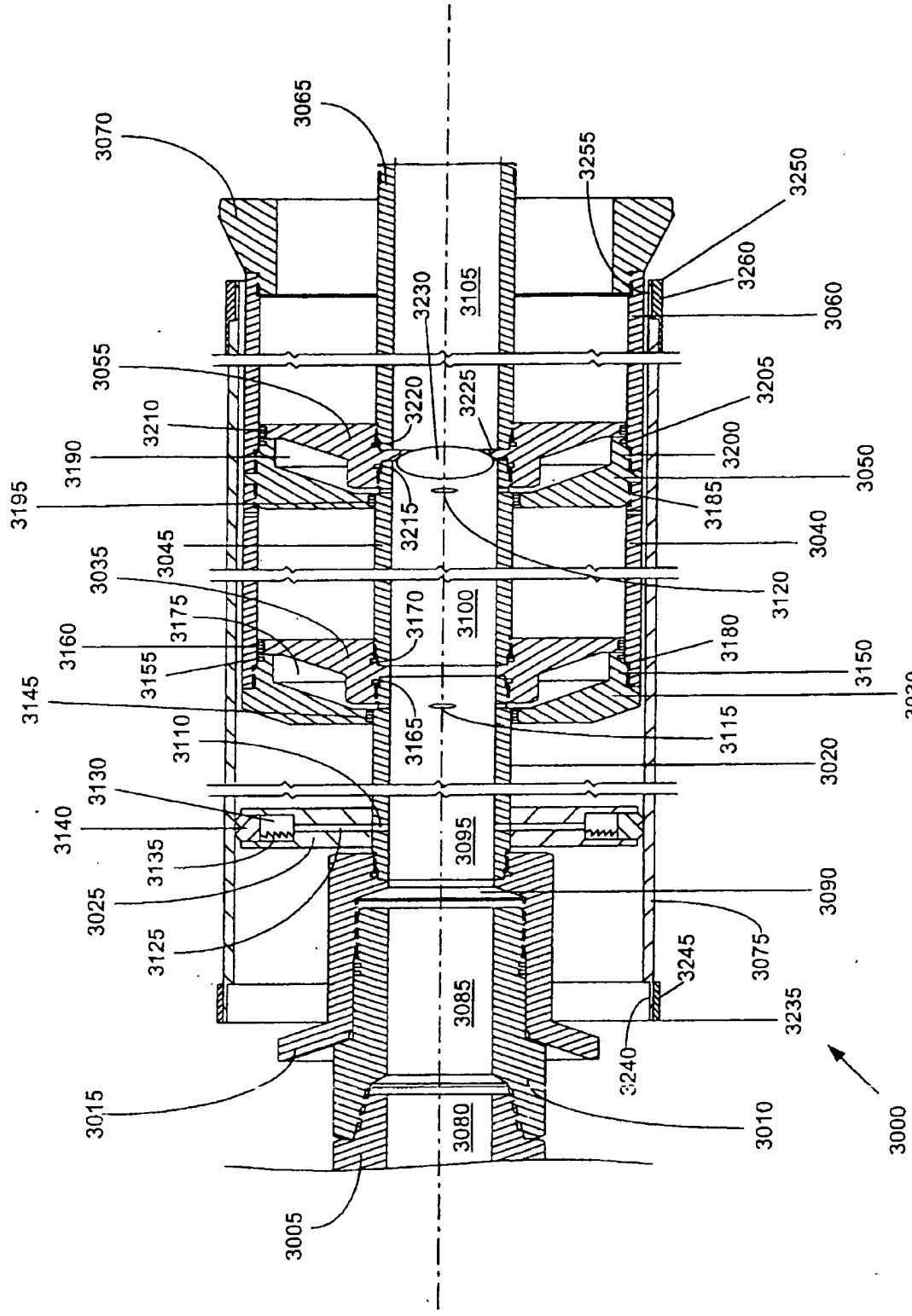


FIGURE 20



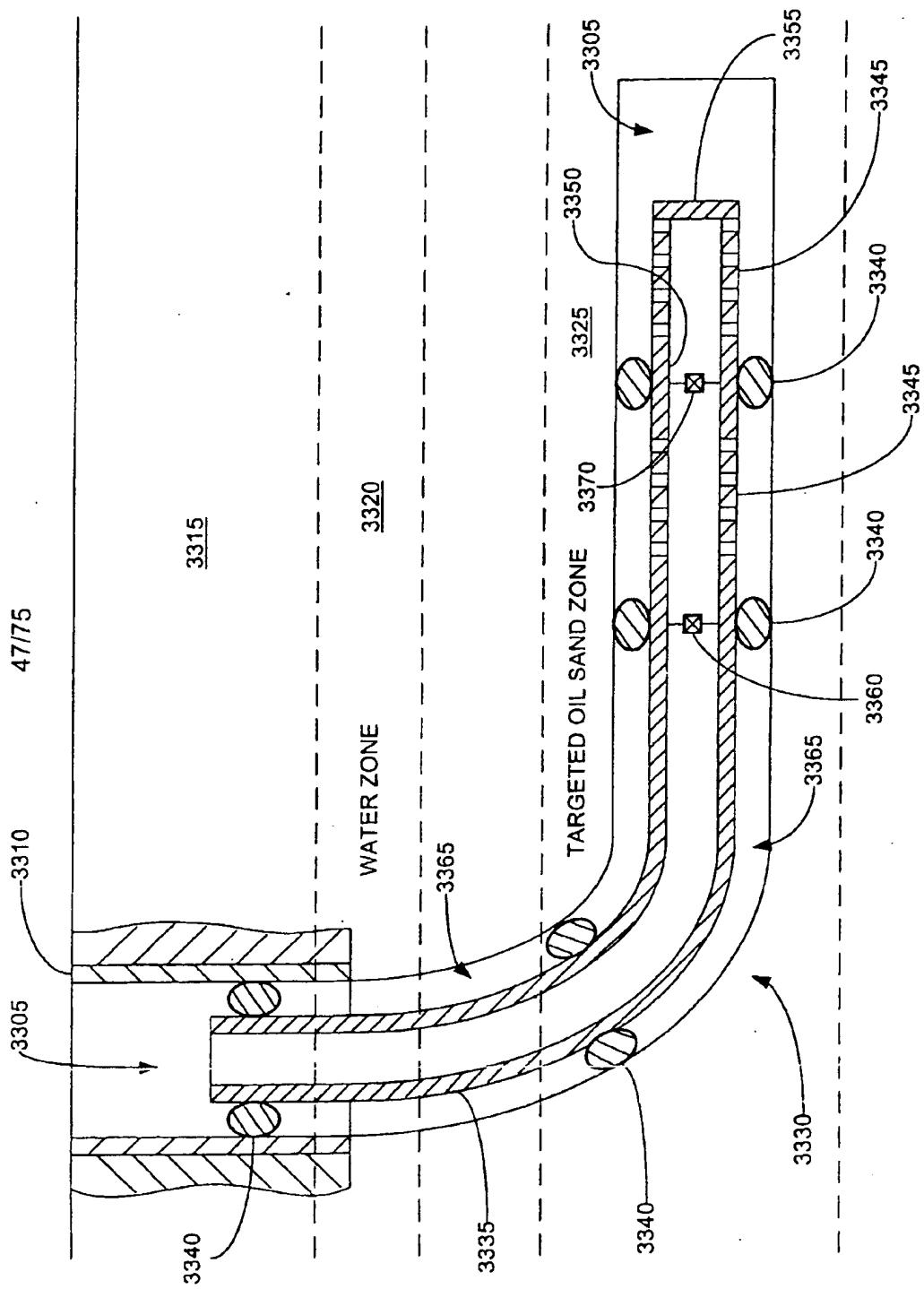


FIGURE 21



**FIGURE 22A**

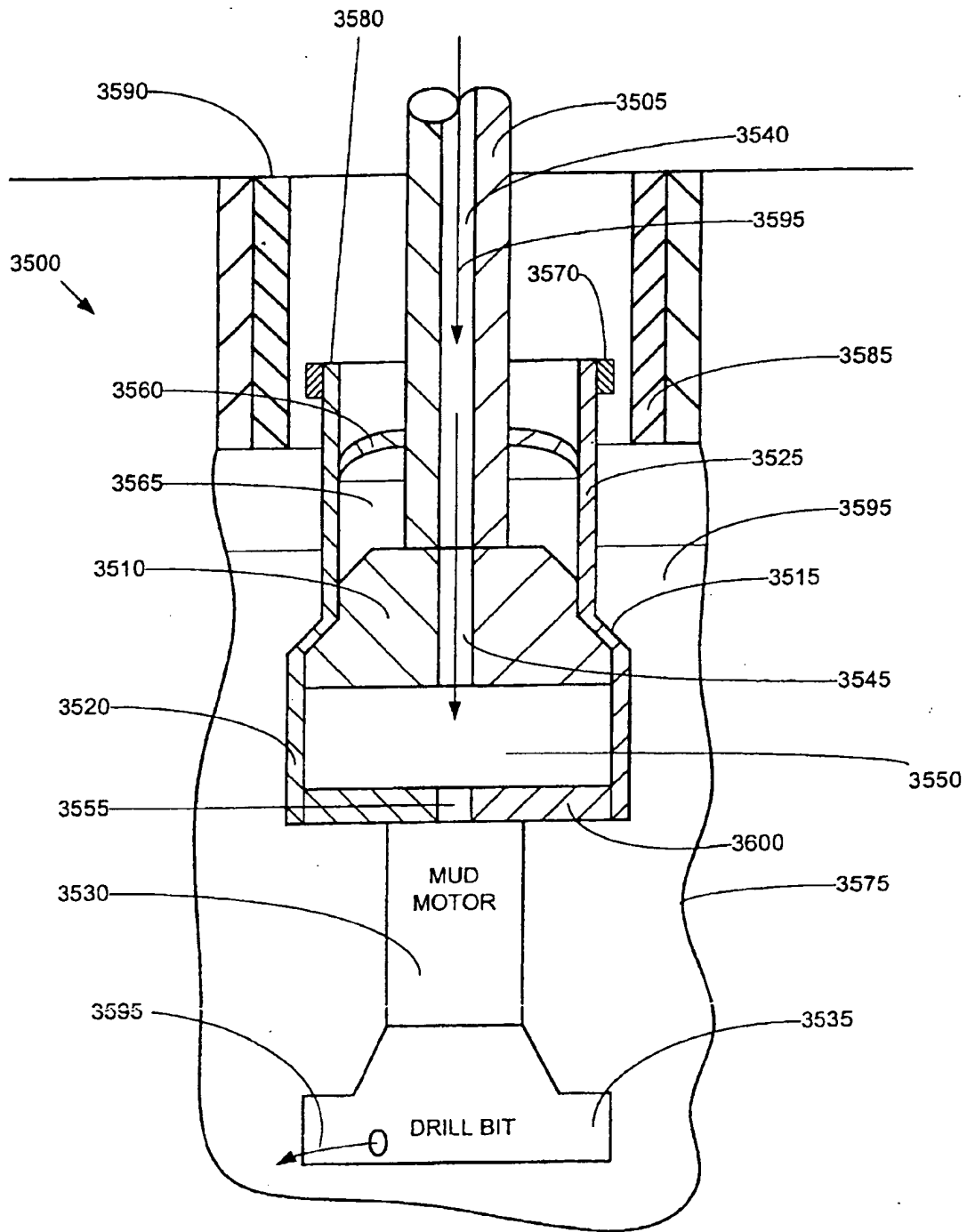


FIGURE 22B

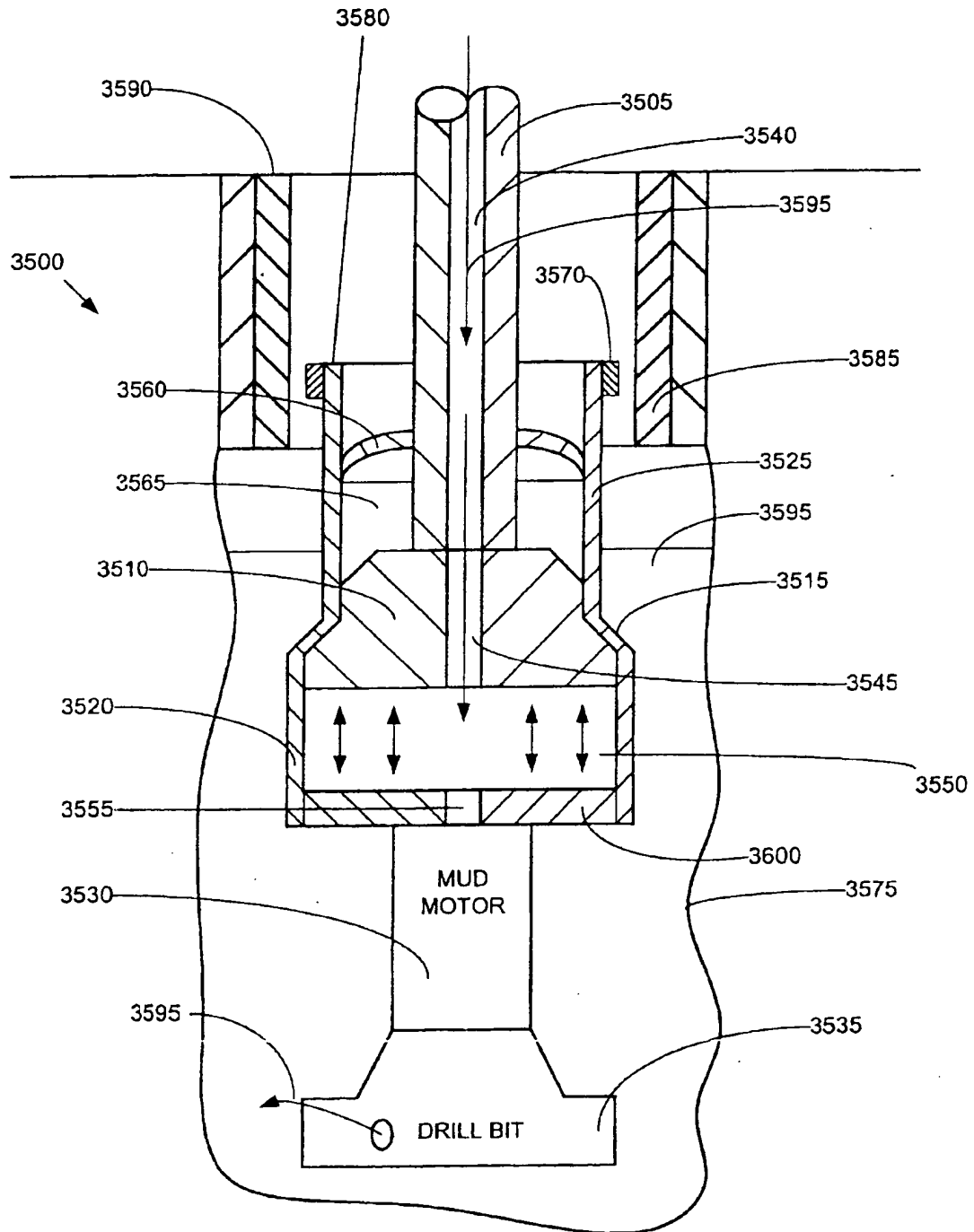


FIGURE 22C

51/75

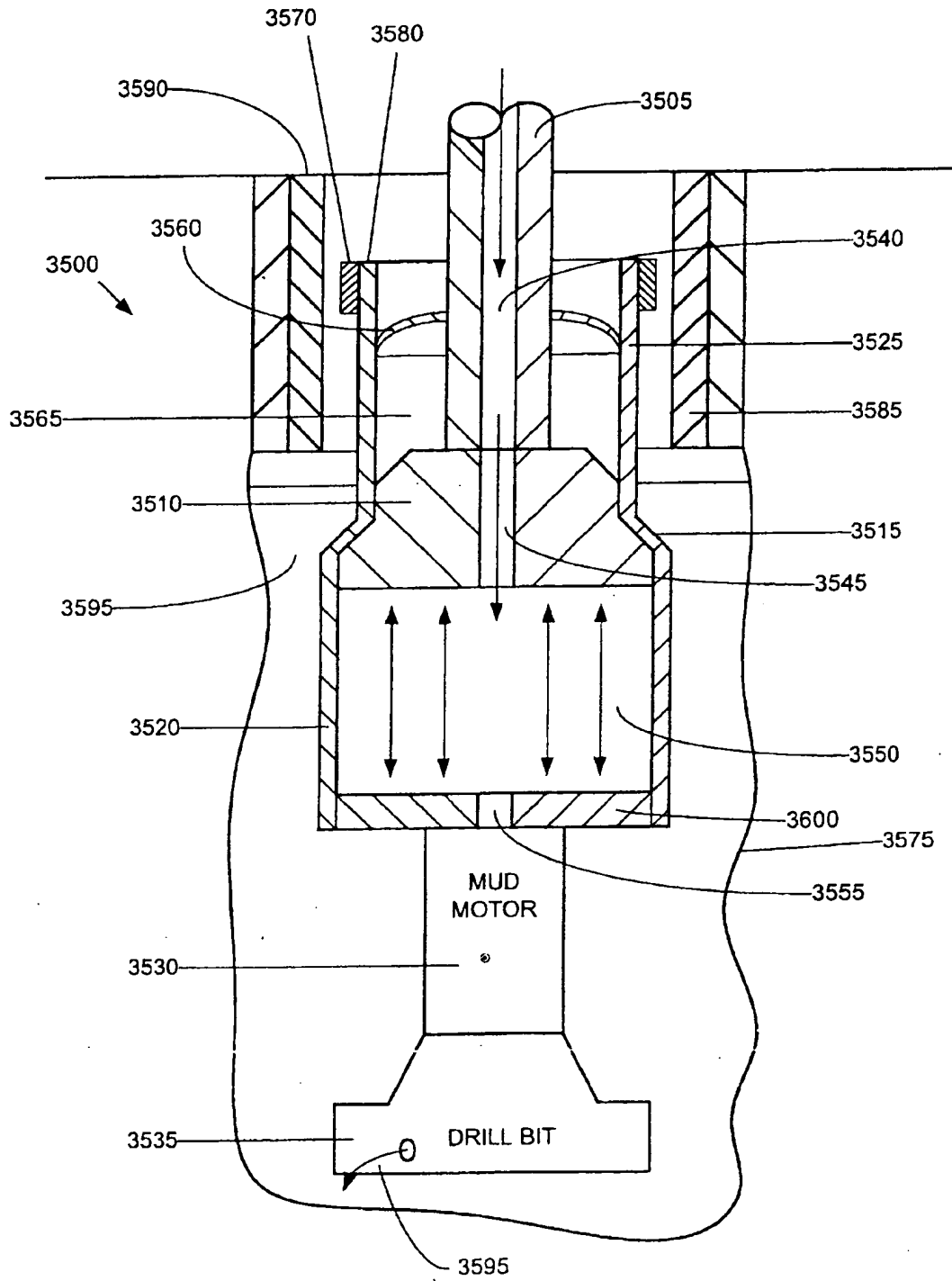


FIGURE 22D

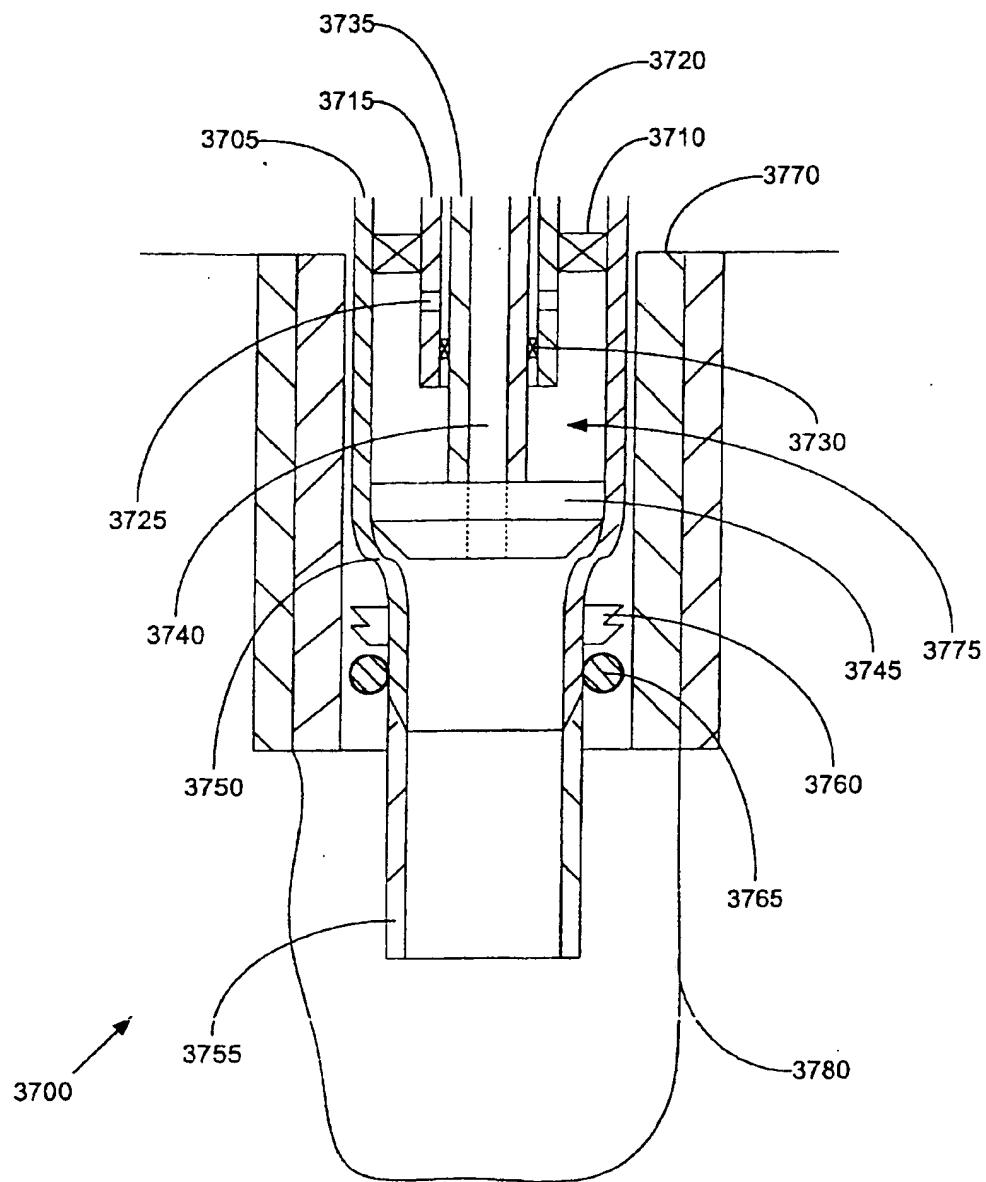


FIGURE 23A

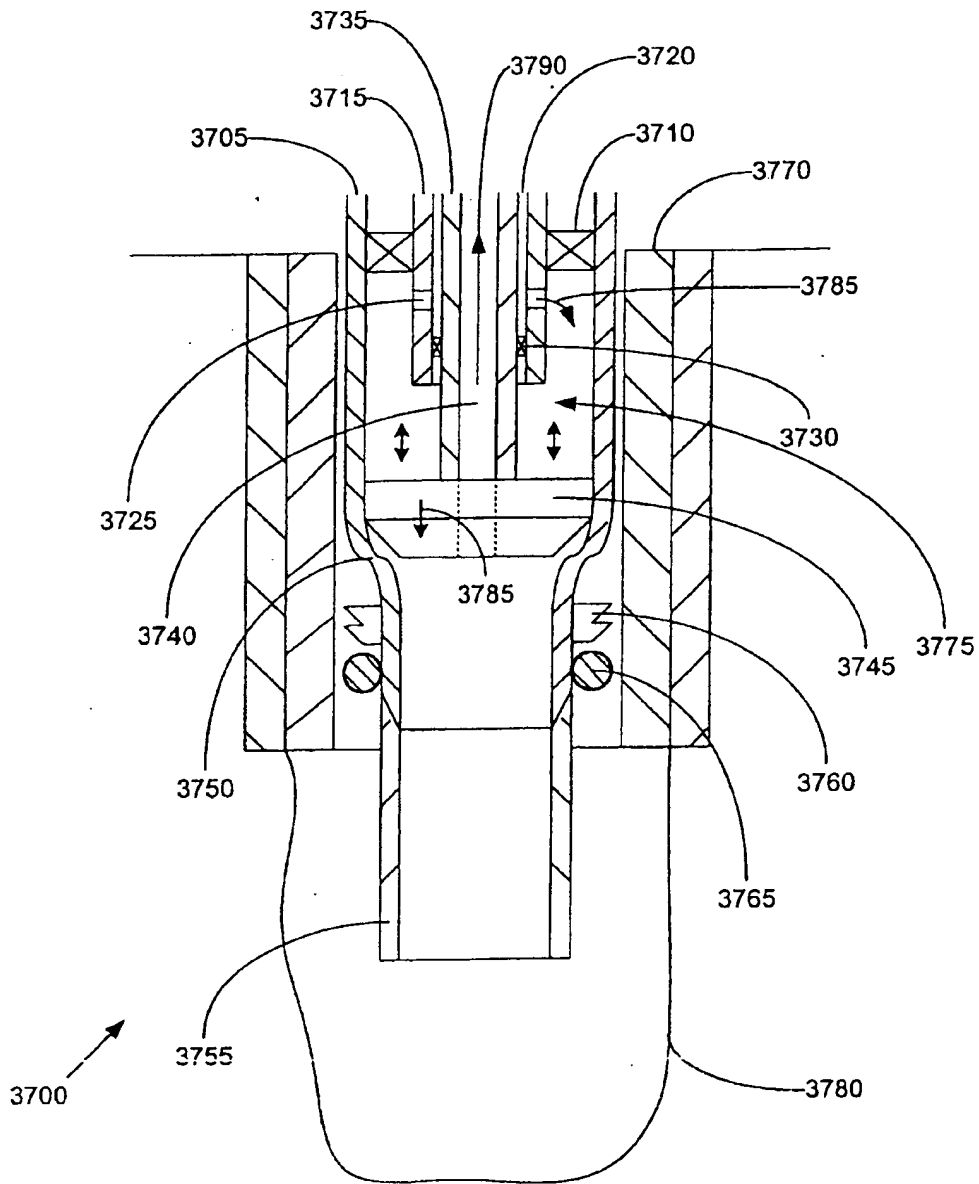


FIGURE 23B

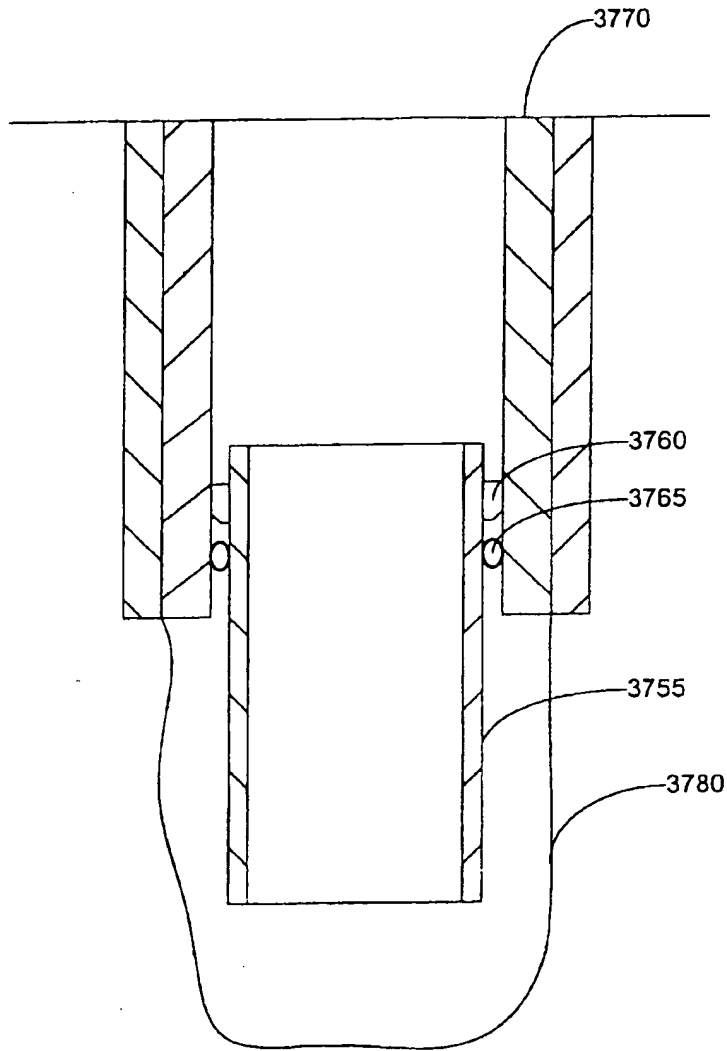
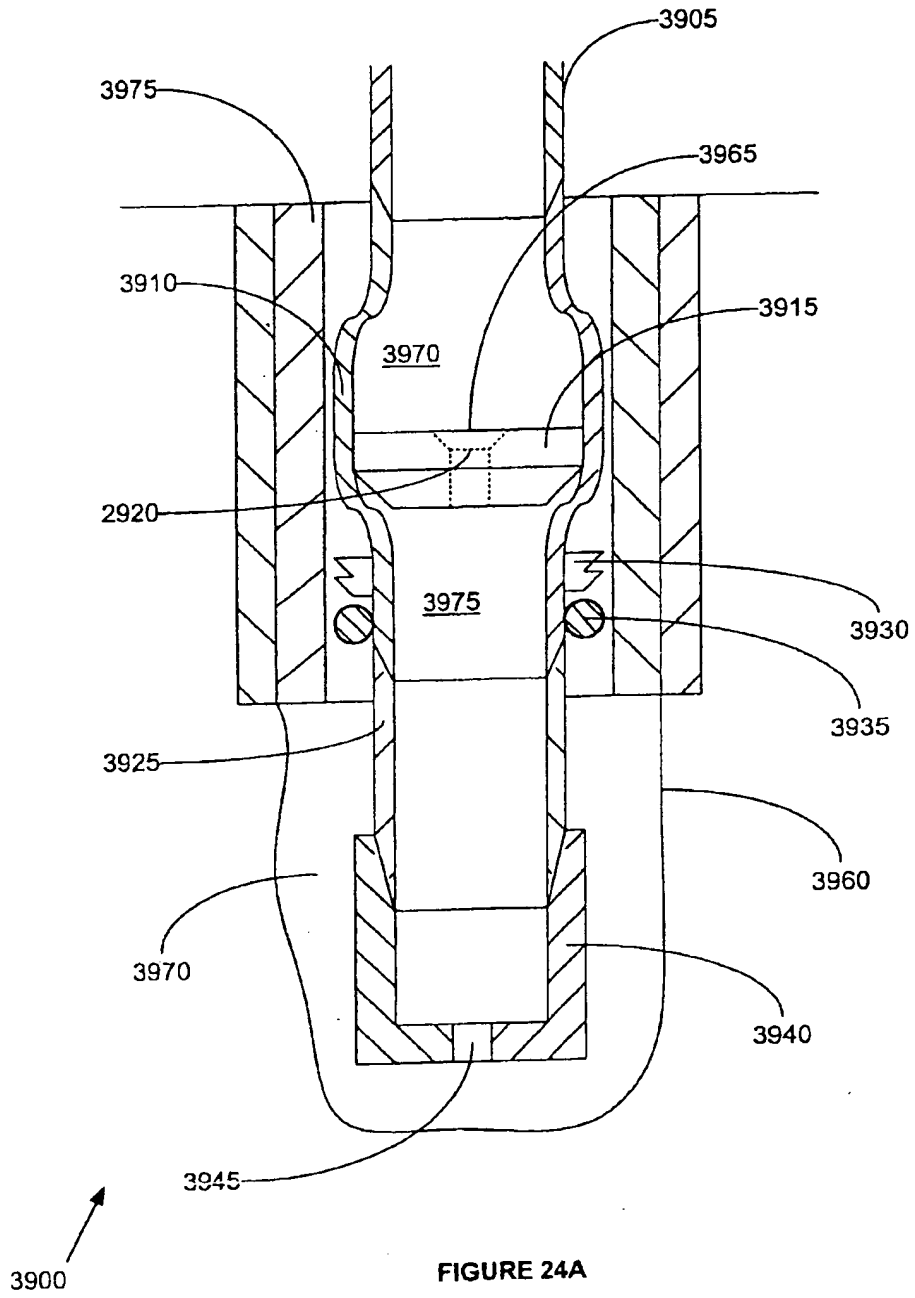


FIGURE 23C





56/75

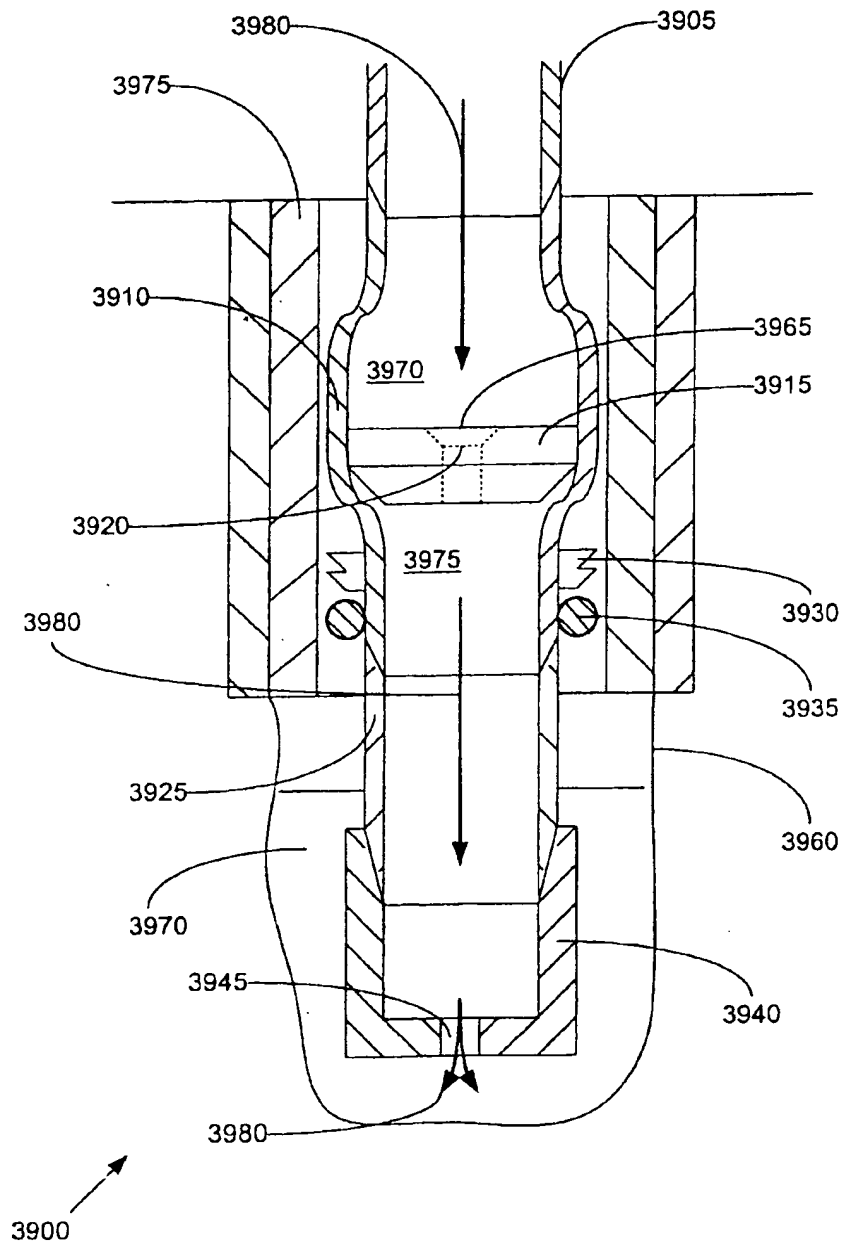


FIGURE 24B

57/75

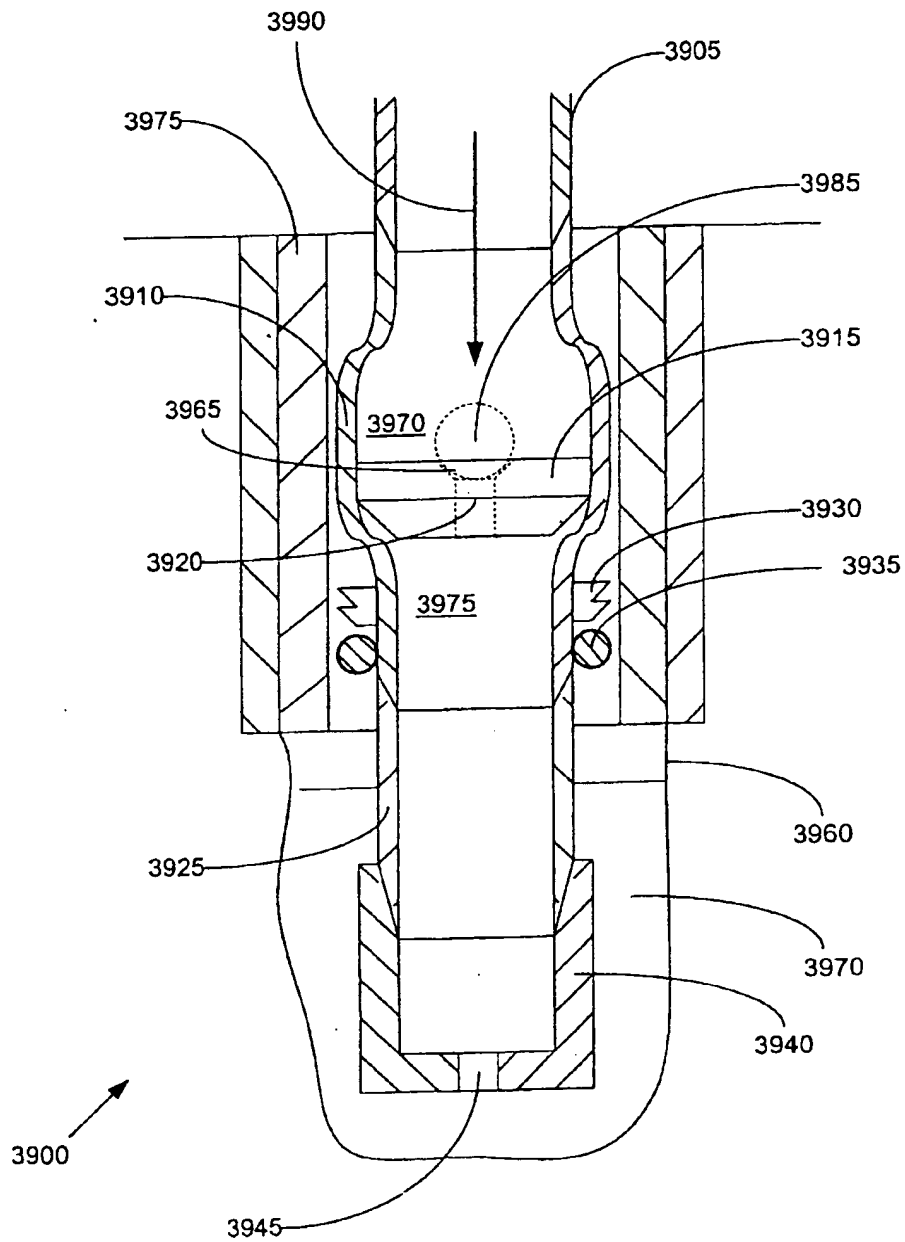


FIGURE 24C

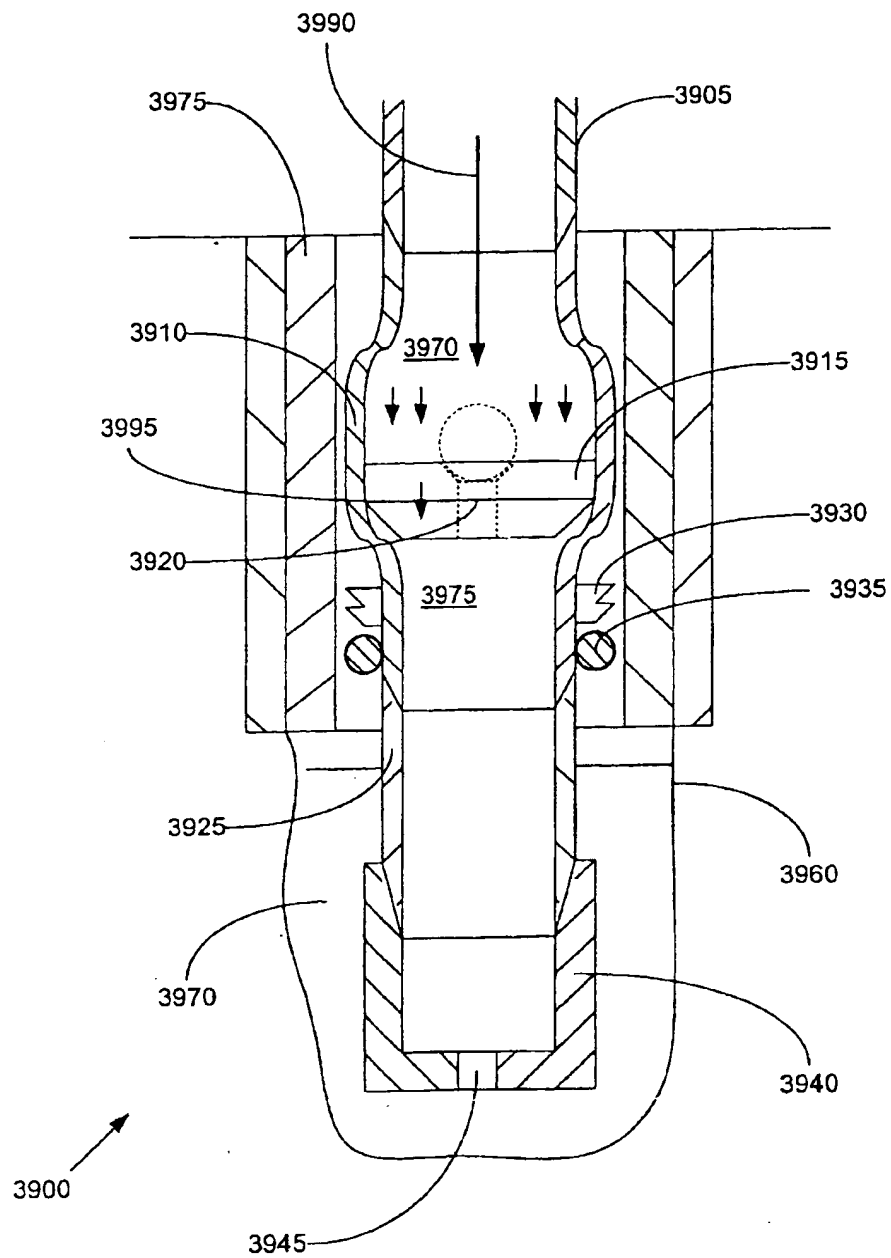


FIGURE 24D

59/75

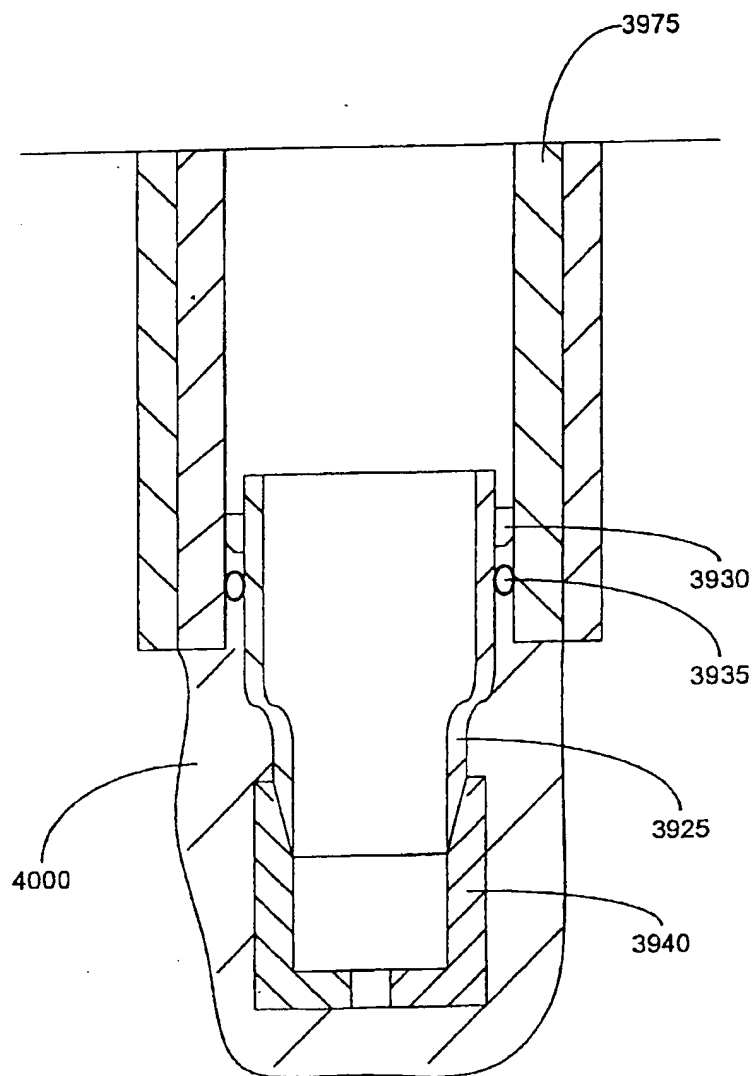


FIGURE 24E

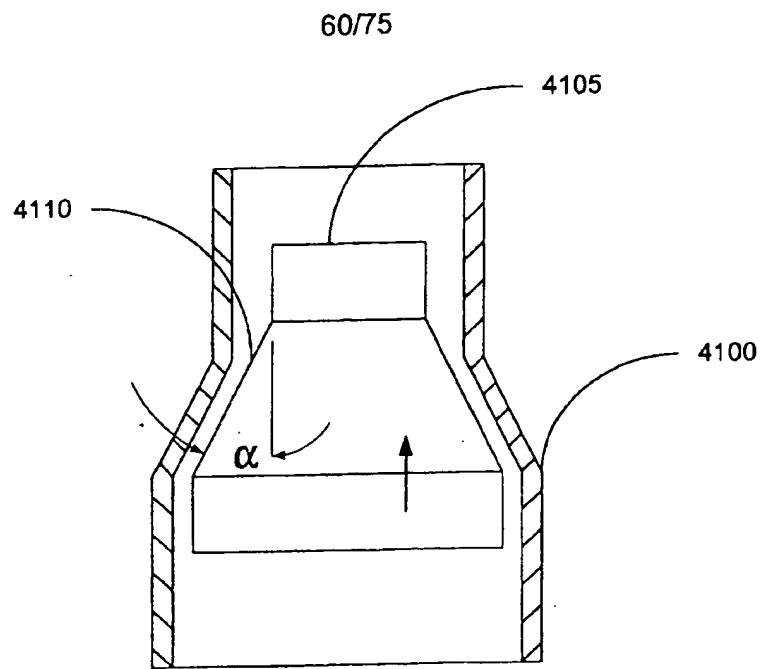


FIGURE 25

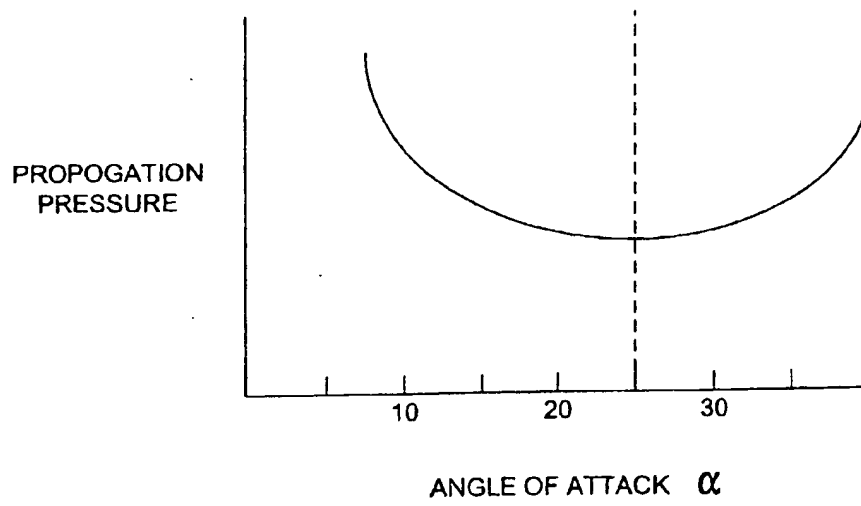


FIGURE 26

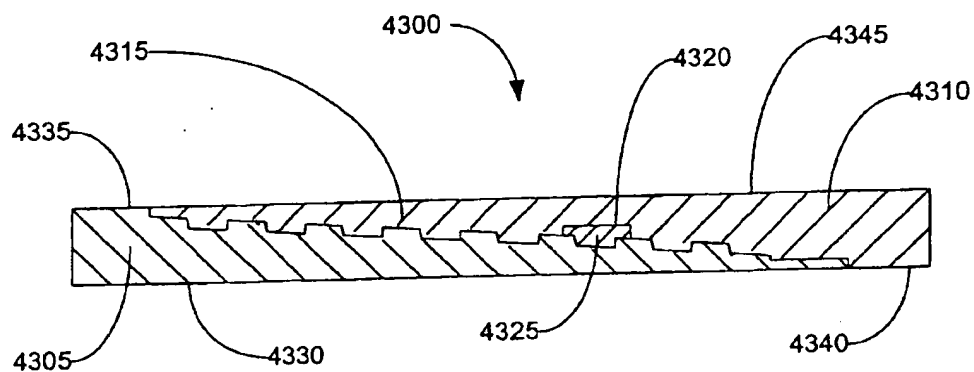


FIGURE 27

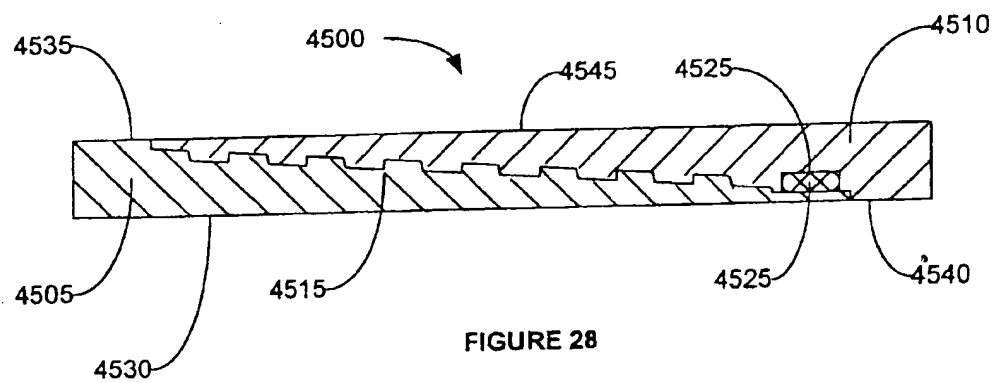


FIGURE 28

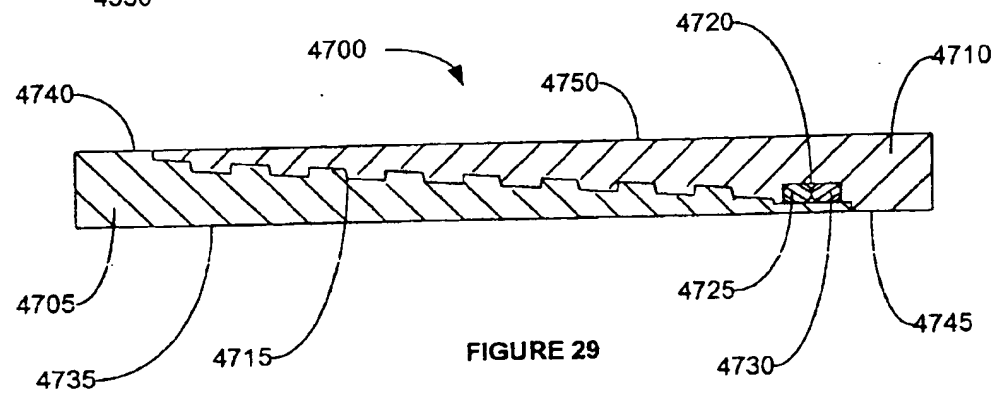
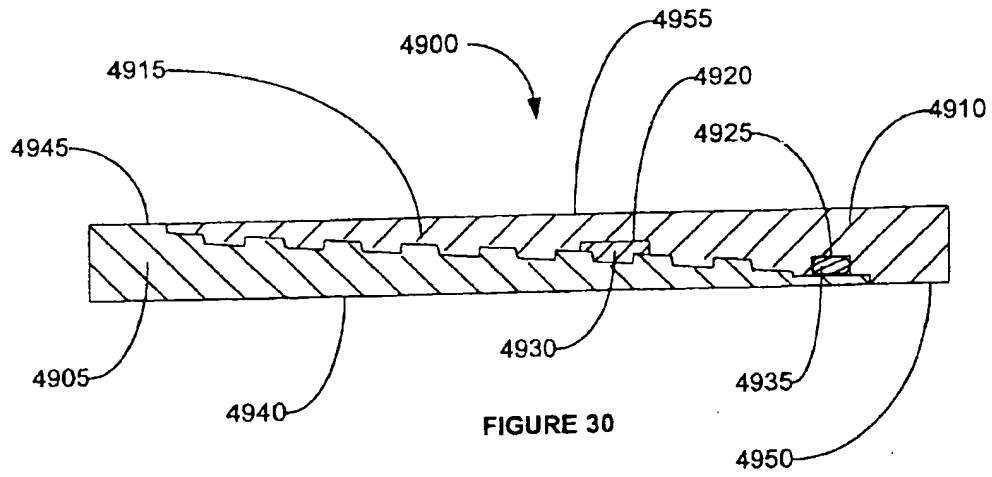


FIGURE 29





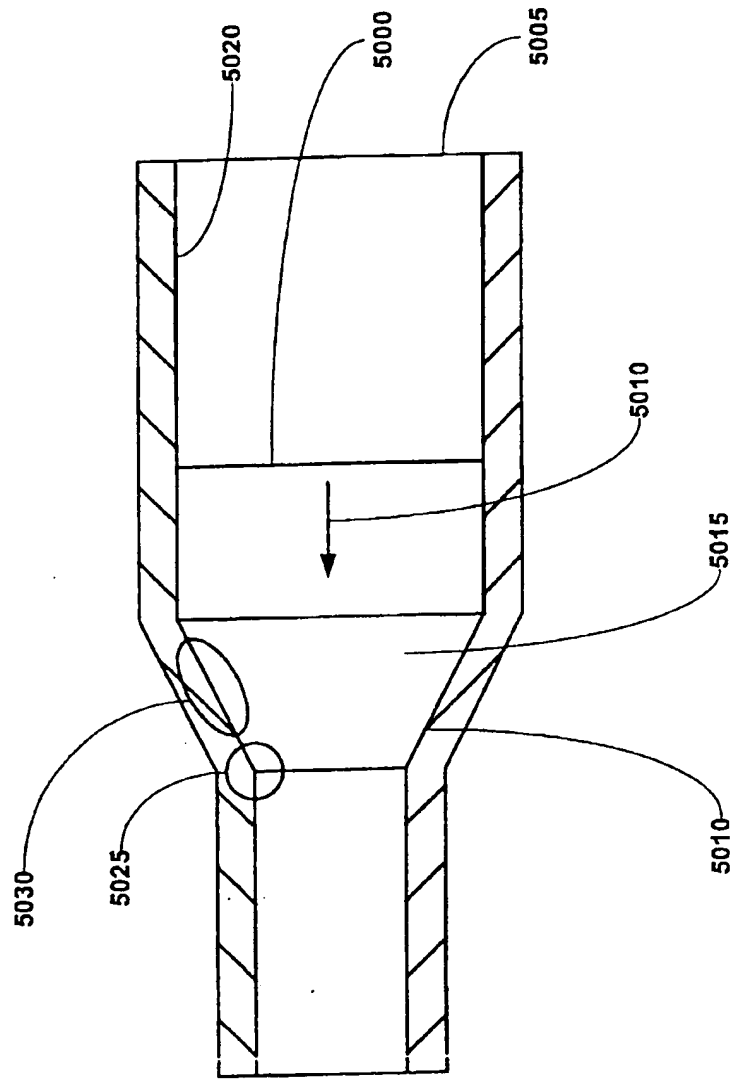
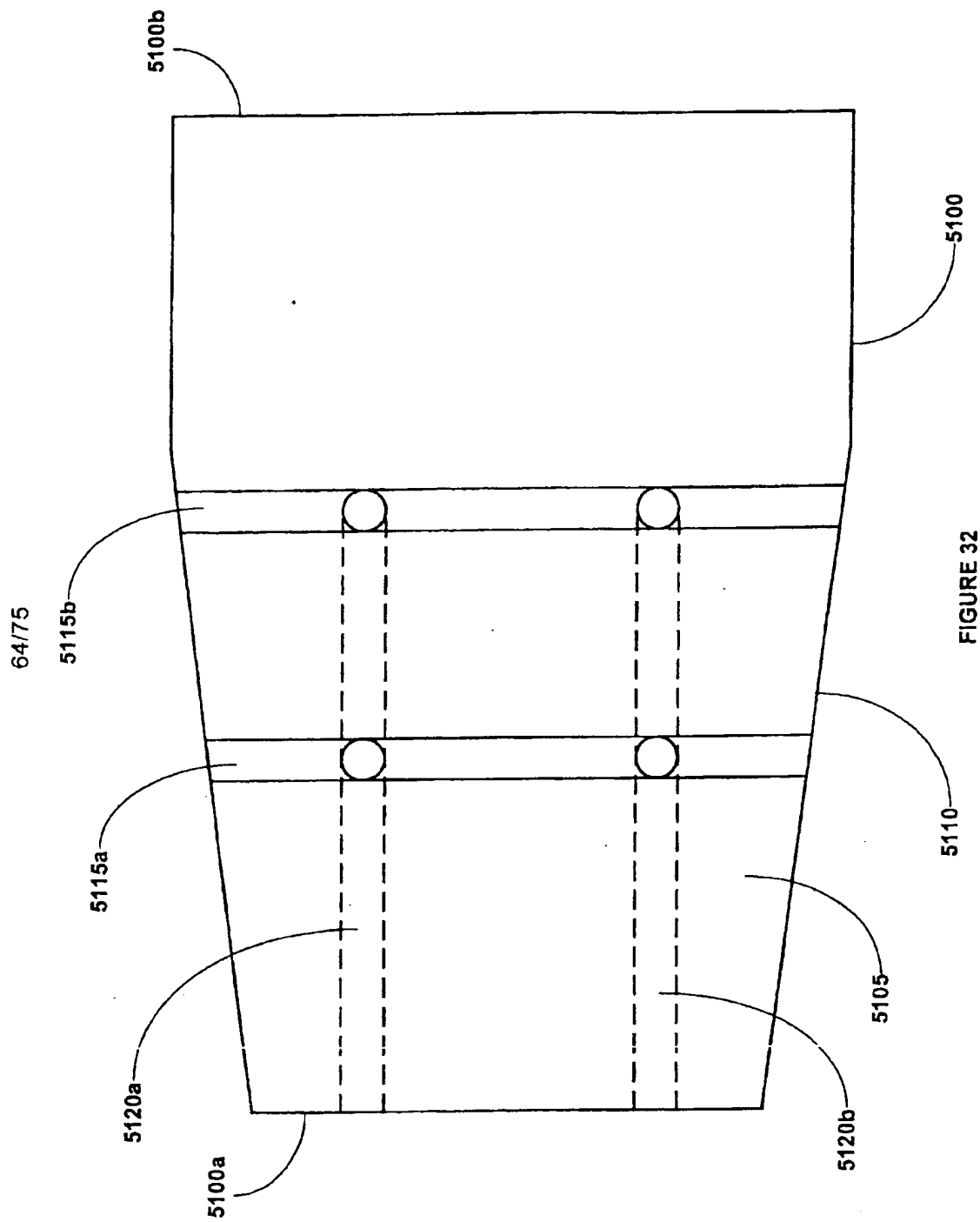


FIGURE 31



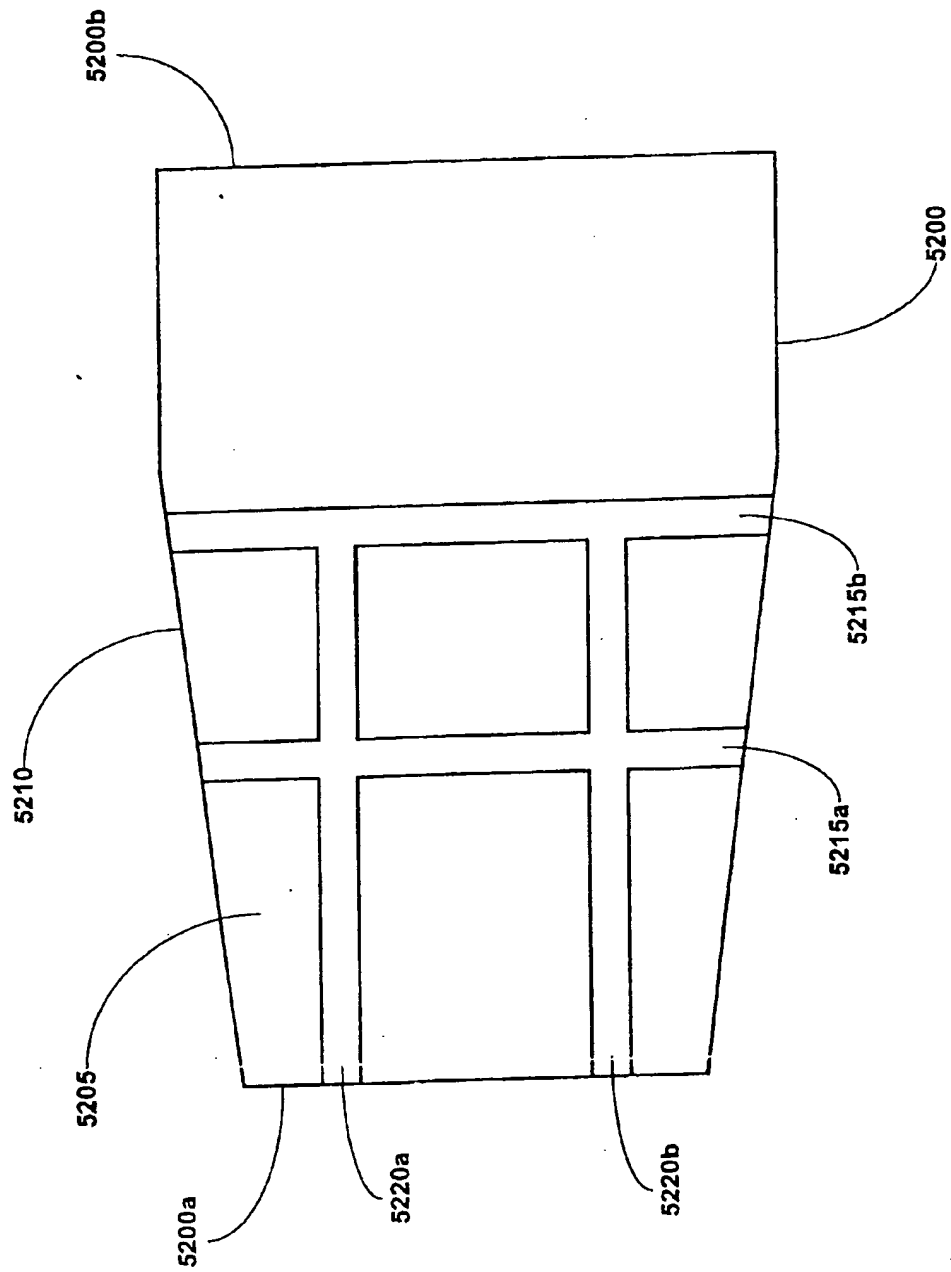


FIGURE 33

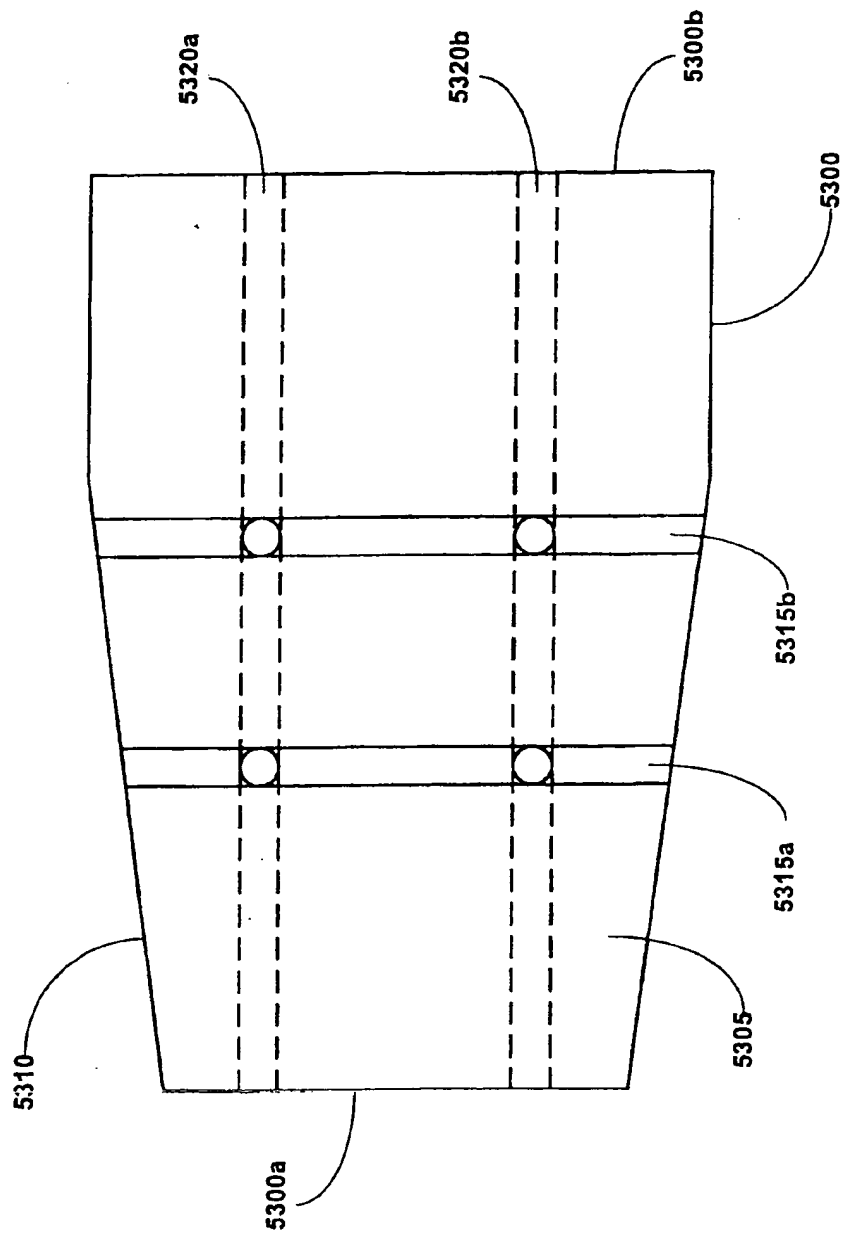


FIGURE 34

67/75

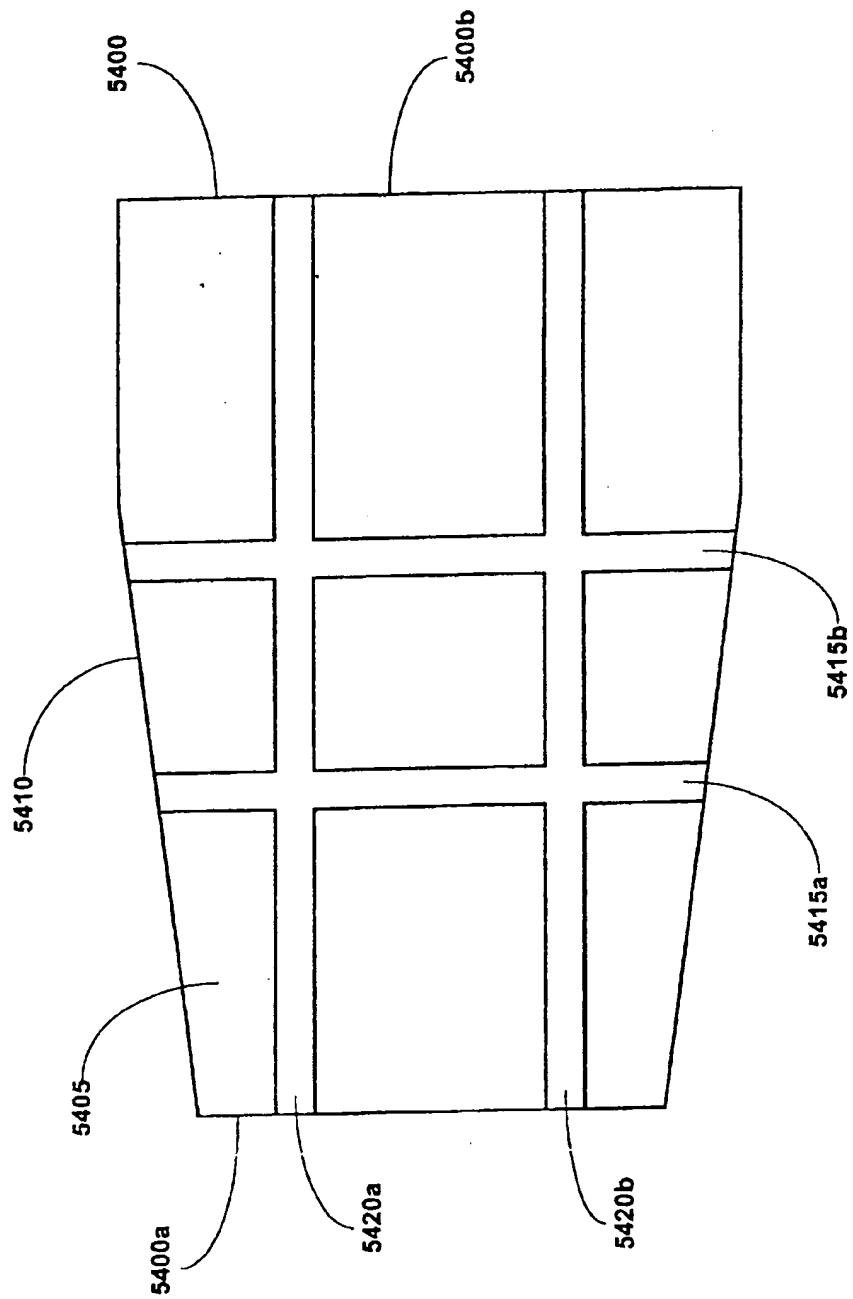


FIGURE 35

68/75

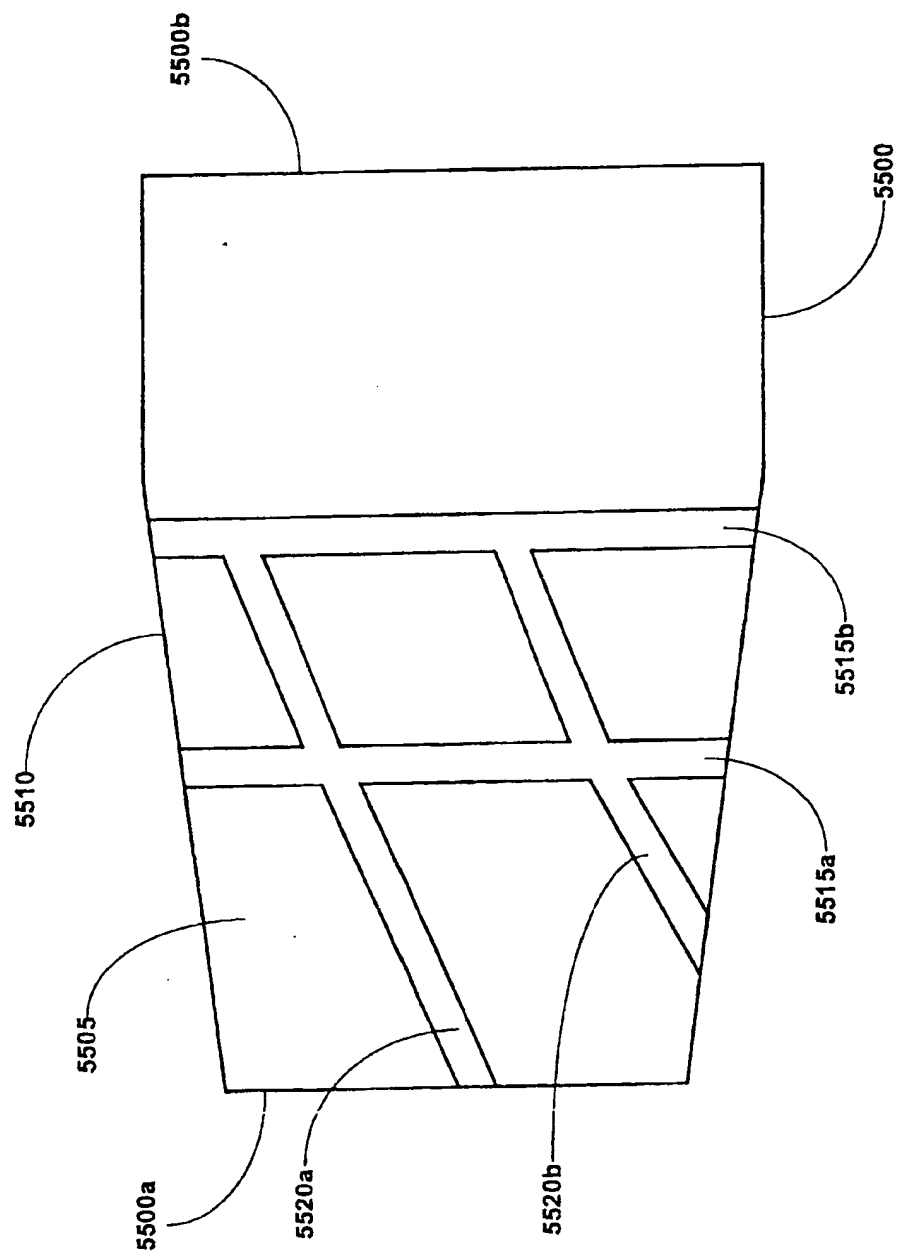


FIGURE 36

69/75

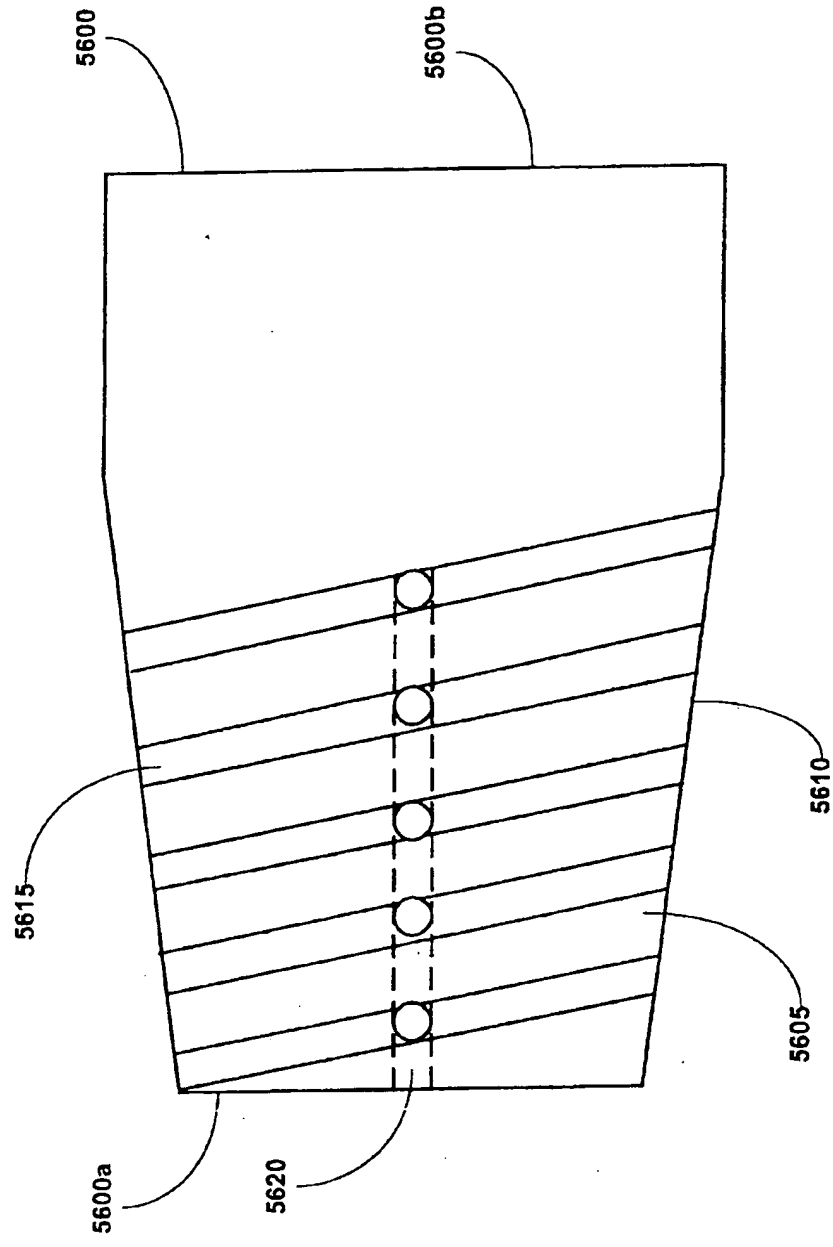


FIGURE 37

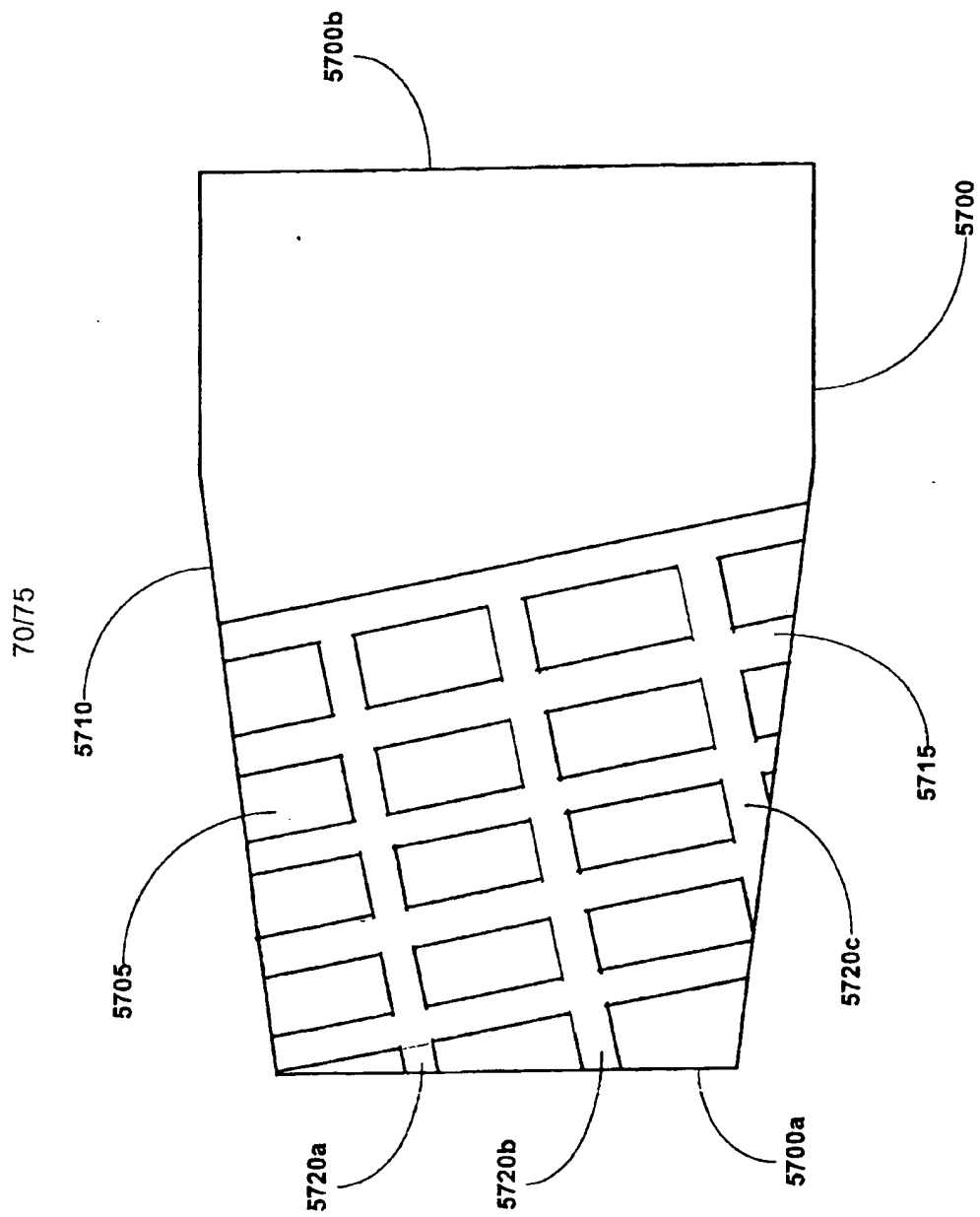


FIGURE 38



**This Page is Inserted by IFW Indexing and Scanning  
Operations and is not part of the Official Record**

**BEST AVAILABLE IMAGES**

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images include but are not limited to the items checked:

- ☐ BLACK BORDERS
- ☐ IMAGE CUT OFF AT TOP, BOTTOM OR SIDES
- ☒ FADED TEXT OR DRAWING
- ☐ BLURRED OR ILLEGIBLE TEXT OR DRAWING
- ☐ SKEWED/SLANTED IMAGES
- ☐ COLOR OR BLACK AND WHITE PHOTOGRAPHS
- ☐ GRAY SCALE DOCUMENTS
- ☐ LINES OR MARKS ON ORIGINAL DOCUMENT
- ☐ REFERENCE(S) OR EXHIBIT(S) SUBMITTED ARE POOR QUALITY
- ☐ OTHER: \_\_\_\_\_

**IMAGES ARE BEST AVAILABLE COPY.**

**As rescanning these documents will not correct the image problems checked, please do not report these problems to the IFW Image Problem Mailbox.**